

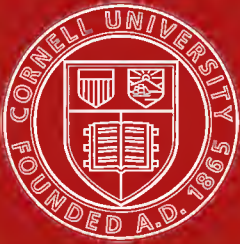
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SEPTEMBER, 1916

No. 3

LAND TENURE IN THE UNITED STATES
WITH SPECIAL REFERENCE TO ILLINOIS

BY

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Instructor in Economics,
University of Illinois.

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Land Tenure in the United States With Special Reference to Illinois

CHARLES LESLIE STEWART

PREFACE

This thesis is based largely upon United States census statistics, the reliability of which is seldom questioned.

Illinois is a suitable state in which to make a type study of land tenure. Its value for such a study arises from: (1) its size and importance in the production of grain; (2) the variety of conditions in its agricultural economy; (3) its location in the great farming region of the Mississippi valley; (4) the ease of access its farmers have to large local markets as well as to other domestic and to foreign markets; and (5) the fact that, agriculturally, Illinois is neither an old nor a new state. Fortunately, the tenure statistics began to be collected at the time when nearly all of the present farm area had just been put under cultivation.

It was planned to carry on more field investigations than circumstances have permitted. There is need for cost accounting studies in the relative profitableness of various forms of tenure. The need for a thorough investigation of the relation of tenure to co-operative enterprise, roads, schools, churches, and social life is equally pressing.

The writer has received help from many colleagues in the faculty of the University of Illinois, especially from members of the economic seminar, and particularly from Professor David Kinley, director of the seminar and dean of the graduate school.

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CHAPTER I

A SKETCH OF LAND TENURE IN THE UNITED STATES

From the earliest date of colonization the land in the territory of the United States has been held under a system of tenure distinguished for its simplicity. The feudal tenure of Europe never obtained much footing in the United States and was influential chiefly in that Americans reacted against it.¹ In place of a complicated system of legal fictions and customary relations and charges, the land system of the United States may be said to consist simply of two forms: ownership; and tenancy, whether on a cash, share, or combined basis. The ownership is that which is known technically as allodial, that is, ownership in fee simple, free from any requirement of rent or service and from any other restriction except that reserved by the state in its right to tax, to exercise police power, and to force sales by virtue of the power of eminent domain.

Between the years 1782 and 1790, six of the seven confederated states which had claims to lands west of the Appalachian mountains had their cessions accepted by congress.² This laid upon Congress the responsibility of disposing of the Western lands. Congress in 1785 and 1787 passed resolutions which established the foundations of the national land policy. The principles laid down were that the land should be alienated by the government to settlers; that non-resident land owners should not be taxed higher than resident land owners; that the New England rectangular system should be employed; that the lands should be surveyed prior to settlement, and sold in small minimum parcels at low prices; that registry should be cheap, and conveyance simple; that the property of persons dying intestate should be equally distributed among the children. These provisions, together with the abundance of the lands, have

¹See article by Taylor, H. C., in *Cyclopedia of American Agriculture*, IV, 174-175.

²New York, 1782; Virginia, 1784; Massachusetts, 1785; Connecticut, 1786, and North Carolina, 1790. The offer of Georgia was made and rejected in 1788 and a satisfactory agreement was not reached until 1802. See Treat, P. J., *The National Land System, 1785-1820*, 15.

exercised a most democratic influence upon the agricultural, social and political life of the nation.³

The public domain of the United States grew by conquest and purchase at a most phenomenal rate. To the quarter of a million acres ceded by the states prior to 1803 there was added to the public domain in that year over three quarters of a million acres. Acquisitions in Florida and in the Southwest increased the public domain by a half billion acres, and the Alaskan purchase brought the total land acreage owned by the United States government to nearly two billion.⁴

These lands were disposed of at a rate sometimes appalling.⁵ During the period, 1831 to 1840, the annual acreage sold exceeded six million on the average. During the next forty years the land sold averaged two-thirds that amount annually. From 1881 to 1888 over twelve million acres left the hands of the government in an average year.

From 1888 to 1900, the annual amount of land taken up underwent a rapid decline, however, and since 1900 very little of the public domain has been sold or given away.

Under such conditions there is little wonder that during the earlier days the major part of the population devoted itself to agriculture. The census enumerations show that in 1820, 83.0, and in 1840, 77.5 percent of the "occupied" population was engaged in agriculture.⁶

Not only did agriculture employ the energy of the larger part of the American people up to the middle of the last century, but the greater part of the free farm families was undoubtedly in full ownership of their farms and homes. The land was taken up, in most cases, in tracts of a size suitable for almost every one to own a farm, and the owners were usually in such an economic condition that they needed the full return from their land instead of the small fraction which they could receive as rental incomes. Furthermore, urban life had not developed to a point where land owners were induced on any great scale to leave their farms so as to reside in the cities. Under such conditions, even though farm rents were low, tenancy had only a small place in American agriculture.

The path to land ownership needed at most to have no more than three stages, that of farm laborer, followed by a period of

³*Ibid.*, ch. II.

⁴Sato, Shosuke: *History of the Land Question in the United States*, 6.

⁵Taylor, H. C. *Syllabus of Lectures on Agricultural Economics*, 78.

⁶Census, 1900, Occupations, xxx.

operating leased land, and ending in the ownership of one or more farms. The passage from a propertyless to a propertied condition was one almost certain in its possibility of accomplishment by any able-bodied, industrious individual. In many cases, the laborer entered land directly without having to pass through the tenant status. Where tenancy was resorted to as a step to land ownership, it was a status from which the individual could usually rise in a few years.

THE TREND OF TENURE, 1850 TO 1880

Whether tenancy was becoming more or less prevalent during the generation before 1880 is a question. The estimates and opinions on tenancy before 1880 are hard to free from the prejudice prevailing when they were expressed.

Possibly the most definite opinions offered on the trend of tenure in the United States before 1880 are those of Dr. L. G. Powers who supplied some statistics on land tenure for the period, 1850 to 1870.⁷ Dr. Powers also gave some statistical estimates for the year, 1880, which bear some relation to the tenure statistics of the census of that date. The estimates he gave are as follows:

STATISTICAL ESTIMATES OF LAND TENURE IN THE UNITED STATES, 1850-1880,
AFTER L. G. POWERS.⁸

Year	1850	1860	1870	1880
Total farm families	2,458,000	3,358,750	4,082,700	4,935,000
Farm owning families.....	1,325,000	1,850,000	2,220,000	3,068,000
Families of tenants, laborers and slaves.....	1,133,000 ⁹	1,508,750	1,862,000	1,867,000
Families of slaves.....	461,500 ⁹	595,000	.....	.....
Families of tenants and laborers	672,500 ⁹	913,750	1,862,000	1,867,000
Families of tenants.....	.....	.....	.....	1,325,000 ¹⁰
Families of laborers.....	.....	.....	.....	542,000

From these estimates it appears that the increase in the number of farm owning families was over twice as great as the increase in the number of families of tenants and laborers, (including slaves in 1850). The percentage of farm families

⁷*The American Statistical Association Publications*, Vol. V, 329-344.

⁸*American Statistical Association Publications*, V, 344

⁹An error of 1000 was made in these figures.

¹⁰This is 300,000 in excess of the number of tenant farms as reported by the Tenth census.

owning their farms increased, according to the view of Dr. Powers, from 53.9 in 1850, to 62.2 in 1880.

The estimate that only 53.9 per cent of the farm families owned their farms in 1850 is probably an under-statement of the extent to which ownership prevailed at that time. It is probable that a larger proportion of the farmers owned their places in 1850 than in 1880. Several facts support this view. In 1850 the cotton lands were operated largely by the owners, of whom those who were too poor to own slaves were too poor to live without cultivating their own land, and those who had slaves seldom leased the land to others to operate. Outside of the cotton belt, land was being taken up in the North and West at a rapid rate, particularly during the sixties. Those who took up new land during this thirty-year period were to some extent former tenants, and by changing to owners must have tended to reduce the percentage of tenancy. Since the area of recently occupied land was being rapidly extended in the West, the influence of that section must have been more strongly against tenancy in the seventies than in the fifties. There seems, certainly, to be no evidence that the trend of conditions between 1850 and 1880 was enough different from the trend since 1880 to cause a movement toward ownership before 1880 and toward tenancy after that date.

Those who assume that the prevalence of large farms is conducive to tenant operation may argue that the decline in the size of farms during this period is an evidence of growth in popular ownership of the land. The large farms of this period, however, were chiefly in the newer country where land ownership was easy to acquire. In the older parts of the country, in spite of the increasing use of machinery, the farms were becoming smaller in all except the Southern states. The tendency to subdivide the older farms probably stayed somewhat the trend toward tenant farming, though it would be hazardous to say that it overcame that tendency.

Between 1850 and 1880, it is probable that the tendency in the South was towards tenancy, in the West towards ownership, and in the North and East, towards tenancy. In the country as a whole the trend towards tenancy was getting under way.

THE TREND OF TENURE, 1880 TO 1910

Beginning with the tenth census, 1880, we have reliable statistics on tenancy for every county in the United States. Data

have been taken with the farm¹¹ as the basis for each decennial enumeration since that date. At the eleventh census special data were gathered on farm and home ownership. In the twelfth and thirteenth census reports tenure statistics were also presented on the basis of acreage of land in farms.

When the results of the tenth census were published considerable surprise was evinced at the extent to which the farms of the United States were operated by tenants. Since that time, however, tenancy has become more and more prevalent in the country.

All of the elements of the farm population showed an increase in number in 1910 as compared with 1880.¹² The percentage of increase in the number of farms was 60; in the number of all persons engaged in agriculture, 40; in the number of owners, part owners,¹³ and managers, 35; of farm employees—persons other than owners, part owners, tenants and managers,—20;¹⁴ and of tenants, 130.

The table on the next page summarizes the census data on the tenure of farms for the main geographic divisions.

Taking the country as a whole the percentage of farms operated by tenants increased from 25.6 in 1880 to 37.0 in 1910. The decade during which the major part of the increase took place was the one from 1890 to 1900. Every division of the country outside of New England showed an increase in the percentage of farms operated by tenants. In the North Central group the percentage rose from a little over 20 in 1880 to

¹¹"A 'farm' for census purposes is all the land which is directly farmed by one person managing and conducting agricultural operations, either by his own labor alone or with the assistance of members of his household or hired employees." "When a landowner has one or more renters, croppers, or managers, the land operated by each is considered a 'farm'."

¹²Census, 1910, V, 122, adapted.

¹³A part owner owns some of the land he operates, and rents additional land.

¹⁴The relative decrease in prominence of the farm employees, is probably due to the increased efficiency of all farm workers. The total acreage per male in agriculture increased from 65.5 in 1880 to 71.0 in 1910, an increase of 8.4 per cent. (Census, 1900, V, xviii, and 1910, V, 28.) The improved acreage per individual in agriculture was 38.7 in 1910 as compared with 34.8 in 1880, an increase of 10.0 per cent. The cause of this increase is to be found mainly in agricultural machinery, the use and labor-saving efficiency of which has undergone a considerable increase during the period since 1880.

somewhat less than 30 in 1910; in the South Central states, from about 36 in 1880 to a little over 50 in 1910; and in the South Atlantic group from 36 to nearly 46 in 1910.

The old New England districts and the new Western regions were characterized by small percentages of tenancy, the former chiefly because of the agricultural depression which drove tenant farmers to other sections, and the latter largely on account of the chance for farmers to become landowners there.

A comparison of the percentages assigned to the various geographic divisions reveals a wider spread or range each succeeding decade. The percentage of tenant farms has moved higher most markedly where it was highest previously, and has shown least positiveness in increasing where it was already low. Taken as a whole, the increase in prevalence of tenant farming has been persistent, although not very rapid.

PERCENTAGE OF FARMS OPERATED UNDER VARIOUS FORMS OF TENURE,
UNITED STATES, 1880-1910.¹⁵

	United States	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Tenants										
1910	37.0	8.0	22.3	27.0	30.9	45.9	50.7	52.8	10.7	17.2
1900	35.3	9.4	25.3	26.3	29.6	44.2	48.1	49.1	12.2	19.7
1890	28.4	9.3	22.1	22.8	24.0	38.5	38.3	38.6	7.1	14.7
1880	25.6	8.5	19.2	20.5	20.5	36.1	36.8	35.2	7.4	16.8
Part owners										
1910	9.3	3.1	5.5	11.7	16.1	6.4	6.9	7.6	8.6	10.9
1900	7.9	2.9	4.4	10.0	14.5	4.9	5.0	5.5	8.3	11.3
Managers										
1910	0.9	2.8	1.9	1.0	0.8	0.7	0.3	0.5	1.6	2.8
1900	1.0	2.5	1.7	1.0	0.8	0.9	0.5	0.7	3.4	2.9
Owners proper										
1910	52.7	86.1	70.3	60.3	52.3	46.9	42.1	39.1	79.1	69.1
1900	55.8	85.2	68.5	62.8	55.1	49.9	46.3	44.8	76.1	66.1

The farms operated by part owners and managers were doubtless classified with those of owners proper in 1880 and 1890. There has been a tendency to adopt the same practice in present-

¹⁵Census, 1910, V, 122, 123.

ing the tenure statistics for 1900 and 1910, especially where comparisons with the earlier dates are being made. So far as the managed farms are concerned, the error involved in counting them in with the farms operated by owners is not great. There was no section in which managed farms constituted more than three per cent of all farms in 1910. For some purposes it is desirable to regard the farms of part owners as not essentially different from the farms of owners proper. In 1900 the farms of part owners contained, on the average, nearly 5 acres more of owned land than the average farm entirely owned by the operator.¹⁶ The part owners constituted 9.3 per cent of all farm operators in 1910.

The tenure statistics based on farms afford a good idea of the numbers of the various kinds of operators. Tenure data based on acreage, however, give some slightly different impressions. The cause of the variations is the fact that farms differ in size between various tenures and sections.

The average acreage of all farms declined from 146.2 in 1900 to 138.1 in 1910.¹⁷ Only the farms of the North Central states showed a tendency to increase in size. The divisions where small farms prevailed in 1900 underwent a still further reduction in the size of operating units by 1910.

In the North East quarter of the country and in the Mountain and Pacific divisions, on the other hand, the size of tenant farms was greater than that of the farms operated by the owners. As a rule, however, the tenants operated farms less than two-thirds as large as those operated by the owners. In the South Central states the tenant farms were between a third and a half as large, on the average, as the farms of owners.

The farms of part owners were approximately twice as large as those of owners proper in 1900, but fell off nearly 20 per cent by 1910, while the farms of owners proper underwent a slight increase during that period. The enormous farms of managers were in the territory west of the Mississippi river, where the farms of all tenures, except tenants in the West South Central states, were much above the general average in size.

On the basis of farms, tenancy was most marked in the Southern states. The number of tenant farms and the percentage of farms operated by tenants in the states of those divis-

¹⁶See below, p. 21.

¹⁷Census, 1910, V, 114, 137.

ions has been so great and increasing so rapidly¹⁸ as to give more or less alarm to some students of the situation. When, however, the statistics of tenure are placed on the basis of acreage, as in the next table, the percentage of tenancy in the South loses much of its alarming magnitude. This is due to the small size

PERCENTAGE OF FARM ACREAGE OPERATED UNDER VARIOUS FORMS OF TENURE,
UNITED STATES, 1900-1910.¹⁹

	United States	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Tenants										
1910	25.8	7.8	25.9	30.0	27.0	30.1	27.9	26.7	10.6	19.8
1900	23.3	9.4	28.6	27.3	23.6	30.6	27.4	19.0	9.4	19.5
Part owners										
1910	15.2	4.2	7.4	13.9	23.9	6.3	8.0	13.8	16.7	21.7
1900	14.9	4.2	5.9	11.7	23.7	4.7	5.8	17.7	22.0	19.6
Rented by part owners										
1910	7.4	1.6	2.1	6.2	11.5	2.4	2.7	6.4	8.9	1.1
1900	7.1	1.6	1.6	5.2	11.4	1.8	2.0	8.2	12.5	1.0
Owned by part owners										
1910	7.8	2.6	5.3	7.7	12.4	3.9	5.3	7.4	7.8	20.6
1900	7.8	2.6	4.3	6.5	12.3	2.9	3.8	9.5	9.5	18.6
Owners proper										
1910	52.9	82.5	62.7	54.1	47.0	60.4	52.1	47.9	53.2	43.1
1900	51.4	82.5	62.2	59.0	49.4	61.4	64.8	37.1	33.0	42.9
Managers										
1910	6.1	5.5	4.0	2.0	2.1	3.2	2.0	11.6	18.5	15.4
1900	10.4	3.9	3.3	2.0	3.3	3.3	2.0	26.2	35.6	18.0
All lessees										
1910	33.2	9.4	28.0	36.2	38.5	32.5	30.6	33.1	19.5	20.9
1900	30.4	11.0	30.2	32.5	35.0	32.4	29.4	27.2	21.9	20.5
All deed-holders										
1910	60.7	85.1	68.0	61.8	59.4	64.3	67.4	55.3	62.0	63.7
1900	59.2	85.1	66.5	65.5	61.7	64.3	68.6	46.6	42.5	61.5

¹⁸In Texas the number of farm tenants increased from 174,991 in 1900 to 219,575 in 1910. (Census, 1910, V, 213.) In Mississippi the percentage of farms operated by tenants increased from 62.4 in 1900 to 66.1 in 1910. (Census, 1910, V, 126.)

¹⁹Census, 1900, V, 308; 1910, V, 114.

of the tenant farms in that region. The social significance of tenancy in the South is not minimized, however, but rather augmented by the fact that great numbers of tenants operate small farms. On the basis of acreage the East North Central division is nearly abreast with the South Atlantic division in the percentage of tenancy, while the West North Central states stand between the East and West South Central groups. On the whole, the percentages of tenancy are much more nearly uniform in the various divisions when the statistics are based upon acreage than when based upon farms.

Because of the large size of their farms, the proportion of farm land operated by part owners and by managers is much larger than the number of such operators would indicate. In 1910 the part owners operated three-fifths as much farm land as the tenants. They hired nearly half of this land. Counting both the land hired by part owners and the land hired by tenants, the data indicate that in 1910 the leasing of farm land was most prevalent in the North Central states.²⁰

The percentage of farm land leased in the United States in both 1900 and 1910 was smaller than indicated by the data based on the number of tenant farms. On the other hand, while there was only a slight increase in the percentage of farms operated by tenants between 1900 and 1910, the proportion of the farm land operated under lease was considerably greater in 1910 than in 1900.

Managers controlled 6.1 per cent of the farm land in the United States in 1910. In the West South Central and Mountain divisions they operated between 10 and 20 per cent of the land.

In nearly all discussions of land tenure in the United States, only the statistics on farms operated by tenants have been employed, and the reader naturally supposes that the farms which are not operated by tenants are cultivated by their owners. The data on the percentage of farms operated by tenants²¹ suggests that (1) owners operated a smaller part of the land in the Southern states than in any other division of the country; that

²⁰The individual states in which the percentages of farm land operated under lease were highest are as follows: in 1900, Delaware, 59.5; Illinois, 45.2; and Maryland, 43.2 (Census, 1900, V, 142, 308); in 1910, Oklahoma, 63.1; Delaware, 52.8; and Illinois, 51.0. The figures for 1910 are estimates in the case of Delaware, where the error can be only slight, and in the case of Oklahoma, where the error may be large. (Census, 1900, V, 142, 308, and 1910, V, 124-126, 820.)

²¹See above, p. 14.

(2) the farms of the Mountain and Pacific states were almost exclusively in the hands of owners; and that (3) operation of farms by owners was declining between 1900 and 1910. Each of these three contentions must be modified or rejected when the statistics of acreage are examined. Outside of the New England and Middle Atlantic states, operation of land by owners was most prevalent in the East South Central and South Atlantic states. Ownership was least common in the West South Central and West North Central groups. In the territory east of the Mississippi river, ownership was less prevalent in the East North Central states than in any other division.

Operation by owners, while shown to be smaller by the data based on acreage than might be inferred from the more commonly quoted data based on farms, was more prevalent in the country as a whole in 1910 than in 1900. It appears, therefore, that while the trend in the tenure of farms was somewhat toward tenancy, the trend in the tenure of farm land was toward a relative increase of both the leased and the owned acreage at the expense of the acreage controlled by managers. This was true especially in the West South Central, Mountain and Pacific divisions. In the Middle Atlantic states the trend was toward ownership because of the decline in the percentage of farms run by tenants. In the North Central states, however, both east and west of the Mississippi river, and in the East South Central states, the trend was toward land leasing and away from operation by the owners.

MORTGAGE ENCUMBRANCE ON OWNED LAND

Although approximately 6 out of 10 acres are operated by the owners in the United States, in many cases the nominal owners hold only an equity in the land. Statistics on farm mortgages were gathered in 1890, 1900 and 1910. They related only to farm land operated by the owners, the part owners in most cases having limited their reports to the land owned by them.²²

The percentage free from mortgage in the United States declined from 71.8 in 1890 to 66.4 in 1910.²³ The percentage of

²²Census, 1910, V, 157.

²³Census, 1910, V, 160, 162. The report for 1910 "covers only farms which consisted wholly of land owned by the operator and for which the value of land and buildings and the amount of mortgage debt were reported;" whereas the report for 1890 "covers all owned farm homes, estimates being made for all farms with defective reports; the statistics cover only the land owned by the farmer in the case of farmers renting additional land."

farms operated by owners under mortgage in 1910 was greater in the West North Central group of states than in any other division, although that division was the only one in which there was a decline from the percentage prevailing in 1890. The district having the highest percentage of farms operated by owners encumbered east of the Mississippi was the East North Central division. Mortgaging of farms operated by owners appears to have been least common in the Southern states, although compared with the percentages prevailing in 1890 in those divisions the practice appears to have been growing with remarkable rapidity.

Outside of the two North Central groups, there appears to be no correlation between the percentage of land leased and the extent to which the owned land is mortgaged. In those divisions, however, we find both the highest percentage of the farm land operated under lease and the highest percentage of the remainder of the farm land owned under mortgage.

In all sections of the country there was a decline in the ratio of debt to value of farm property between 1890 and 1900. The equity increased from 64.5 per cent in 1890 to 72.7 per cent in 1910.²³ This was in spite of the increase of 40.1 per cent in the amount of indebtedness on the average American farm between the two dates. The amount of equity increased 106.0 per cent. It seems, therefore, that the rise in the value of mortgaged farms was so great that the increase in mortgage debt could not keep up with it. This was less true of New England and the Middle Atlantic states than of the remainder of the country. The proportion of the value of mortgaged farms covered by mortgage was highest in those divisions in 1910.

To summarize, in 1910 in the United States as a whole 33.2 per cent of the farm acreage was operated under lease, 6.1 by salaried managers, about 20.4 by owners under mortgage,—the mortgage indebtedness representing 27.3 per cent of the value of the farms. Only about 40 per cent of the farm land was operated by owners clear of mortgage encumbrance.

CAUSES AND CHARACTERISTIC FEATURES OF PREVAILING FORMS OF TENURE.

The conditions underlying the various forms of tenure in American agriculture may, for the sake of convenience, be considered from three points of view. It is important in the first place, to understand the position of the owners of land, and of the farm operators. A consideration of the question which

²³*Ibid.*

form of tenure best conserves the land and improves farm production requires a somewhat different outlook. The relation of the various forms of tenure to the general economic conditions of the nation is a third point of vantage from which to study tenure.

There are numbers of cases where the owners of land could not well keep from being landlords. In the case of women and children inexperience or immaturity as a rule unfits them for operating farms. Owners of land in extraordinarily large tracts, or in tracts widely distant,²⁴ frequently find that it pays them best to rent some and operate the rest of their soil. Owners sometimes rent their land so that they may devote their time to other interests, such as travel, politics, business,²⁵ health, or some special service. Such interests often cause the owner to discontinue the operation of his farm for a number of seasons and sometimes to quit active farming altogether. Again, when an owner and his wife become advanced in age their increasing dependence on hired help in the field and in the home often makes it advisable for them to give up the operation of their land.

A second class of owners consists of those who become land holders through inheritance or purchase. When the title to farm land passes to heirs, they often arrange to have the land operated as a unit by some renter, quite frequently one of their own number. The few who obtain land through the foreclosure of mortgages often value the land from the speculative point of view. Many others who purchase land are also to be regarded as speculative buyers. Such land owners, awaiting a favorable turn in the price of land, are seldom inclined to incur the expense of installing the managerial system and naturally prefer short-lease tenants. When corporations, such as coal, railway, gas, oil, or land improvement companies, own farm land its cultivation is usually of incidental importance to them, even in cases where the land remains more or less permanently in their hands. A condition of this kind is conducive either to managerial or tenant cultivation.

²⁴In the United States 11.4 percent of the owners of rented farms owned two farms in 1900; 5.4 percent owned three or four farms; 2.3 percent owned five to nine farms; and 0.9 percent owned ten or more farms. See Census, 1900, V, lxxxviii.

²⁵A large number of country bankers, for instance, are so-called "banker-farmers". Not all of these were farmers, however, before they were bankers. See Stewart, C. L., *An Analysis of Rural Banking Conditions in Illinois*, 4, 5.

Perhaps the most numerous class of landlords is made up of those who seek retirement from the farm.²⁶ Many owners leave the farm so that the children may start operating the home place, unhampered by lack of house room, and with greater freedom to work out their problems. It frequently happens that the parents move to town so that the children may be at home with them while launching into their school, business or society careers. Parental considerations, however, are often of no more influence than the desire to get away from the objectionable features of rural life, and to get easier access to the institutions and facilities of the city. When farmers retire, they usually rent their farms either to a relative by birth or marriage or to a trusted farm hand.

Part owners are operators who hire land to cultivate in addition to land of their own that they farm. Some statistical facts concerning part owners are presented in the following table.

AVERAGE ACREAGE OWNED AND HIRED BY OWNERS, PART OWNERS AND TENANTS, UNITED STATES, 1900-1910.²⁷

Census year	Average number of acres					Percentage of partly owned land hired
	Operated by part owners	Hired by Part owners	Tenants	Owned by Part owners	owned proper	
1910	225.0	111.4 ²⁸	96.2	113.6 ²⁸	138.6	49.5 ²⁸
1900	276.4	136.8	96.3	139.6	134.7	49.5

²⁶While it is not correct to assume that the number of farmers living in retirement is equal to the number of rented farms whose owners do not live in the same county, a reference to the latter data may be useful at this point. In 1900, of the 95.5 percent of the rented farms for which reports were obtained, all but 20.3 percent reported the owners to be residents of the same counties as that in which the respective farms are located. The owners of 15.2 percent of the farms were located in other counties of the same state, and in the case of 5.1 percent of the farms were located in other states. See Census, 1900, V, lxxxvii.

No doubt there are instances where the landlords living in adjoining counties are closer to their farms than some living in the same county in which their places are located. The same thing doubtless applies in the case of owners living in other states. On the other hand, the residence of owners in the same county does not guarantee a close interest in operations carried on by their tenants.

²⁷Census, 1910, V, 99 and 1900, V, 308.

²⁸Estimated to make the percentages identical in the last column.

Though practically half of the land in the farms of part owners was hired the owned acreage was so nearly comparable to that of operators owning their entire farms that it seems natural to assign the part owners an economic status even higher, on the average, than that of owners proper. It is gratifying to note, therefore, that in spite of the decline in the size of partly owned farms, the percentage of all land operated by part owners increased from 14.9 in 1900 to 15.2 in 1910.²⁹ The percentage of their land that was improved was 45.5 in 1900 and 56.9 in 1910, as against a percentage of 50.6 at the latter date for the land of operators owning their entire farms.³⁰

Tenancy, when practiced by part owners, seems to be usually a matter of choice. By renting additional land part owners practically double the scale of their operations without requiring any great increase in the amount of money they have invested. They are limited in the area from which they may choose land to rent, but in most districts there is usually enough land for rent near their places. Sometimes they afford almost the only means an owner can find to get a piece of land operated without equipping it with buildings. Part owners, therefore, may often rent good land on favorable terms. On the other hand, since part owners may not ordinarily be expected to build up the fertility of the land they hire as carefully as that of the land they own, it is only natural that some landlords prefer not to rent land to them.

Often the farm of a part owner is the area comprised in an estate that has been divided among heirs. In such cases the partition of a farm at the death of the former owner destroys the unity of ownership without destroying the unity of operation.

The large size of the partly owned farms affords evidence that some experienced farmers are in favor of expanding the area cultivated in place of intensifying the cultivation of small farms. This economy arises in part from the fact that the building equipment of the area owned by the part owner does service for the hired area as well. Where pieces of land are found without independent equipment in buildings part ownership is a form of tenure to which resort is commonly had. A tendency to reduce the size of holdings in districts of large-scale farming often results in an increase in the prominence of part ownership.

In a number of the Southern states the place of colored

²⁹See above, p. 16.

³⁰Census, 1910, V, 97.

tenants is one of great significance. In four states, Mississippi, South Carolina, Alabama and Georgia, over half of the tenants in 1910 were colored, and their numbers aggregated 415,947.³¹ Ten years previously the number of colored tenants in the same states was 324,964. The white tenants in these states were outnumbered by colored tenants nearly 2 to 1 in 1910.

The tenants of the Southern states must be sharply distinguished from those in other parts of the country. For the most part they operate cotton farms of twenty acres, are under the supervision of the owner of the farm, are in debt for most of the one or two hundred dollars worth of property they own, and are dependent upon lien holders for their subsistence from season to season. In the Northwest, on the other hand, the tenant is practically as independent as if he owned the land, owns property worth thousands of dollars, and conducts his farm and business operations entirely as suits him; in the East the tenant must engage in highly intensive farming; and in the newer West he is operating land recently taken up from the public domain.³² Tenancy in the South should by no means be confused with tenancy in other parts of the United States.

Somewhat of an indication of the economic status of tenants is afforded by the kind of basis on which they pay rent—whether they pay a fixed amount of cash per acre, or a share of the products. The census did not report “share-cash”³³ tenants separately before 1910, and until that date followed the practice of including tenant farms whose basis of rental payment was unspecified with the cash tenant farms. The following table shows the difference between the kinds of farm properties operated by the two major classes of tenants which, for the sake of brevity, we may call share and cash.³⁴

³¹Census, 1910, V, 210-213.

³²Hibbard, B. H., in *Quarterly Journal of Economics*, XXV, 710-711.

³³“Share-cash” tenants are those who pay cash for part of the land rented by them and pay a share of the products for part.

³⁴The number of all tenants in the United States increased from 1,024,601 in 1880 to 2,354,676 in 1910. The number of share tenants increased from 702,244 in 1880 to 1,528,389 in 1910. The corresponding increase in the number of cash tenants was from 322,357 to 826,287. The percentage of all tenants renting for cash was 31.4 in 1880, 35.2 in 1890, 37.3 in 1900 and 35.2 in 1910. See Census, 1910, V, 102.

THE AVERAGE ACREAGE OF LAND, TOTAL AND IMPROVED, AND THE VALUE OF
VARIOUS KINDS OF PROPERTY PER FARM OF SHARE AND CASH
TENANTS, UNITED STATES, 1900-1910.⁸⁵

	Total	Improved	Total	Land	Buildings	Implements and machinery	Live stock
Share and share-cash							
1910	93.2	69.1	\$5222	\$3945	\$ 615	\$ 131	\$ 530
1900	92.4	65.0	2647	1853	386	89	319
Cash and unspecified							
1910	101.7	61.3	\$5613	\$4139	\$ 710	\$ 146	\$ 620
1900	102.9	56.7	3003	2100	423	92	388

It appears that the cash tenants have been operating larger and more valuable farms than the share tenants. The comparative difference in values, however, is not a great one per farm and a still smaller one per acre.

On the possibility of improvement in economic status of farm tenants we have little statistical evidence. There can be no doubt, however, that there are tenants who are not in a financial position to own any farm land, though they would regard the buying of land as a desirable and natural step to take. On the other hand there are tenants who, though financially able to own farm land, do not prefer to invest their capital in land.

Ordinarily the members of the first class can choose between operating land as renters, hiring themselves out as farm laborers, and seeking a livelihood in some pursuit other than agriculture. Allowing for the loss and trouble connected with changing from their present status, it may be assumed that such tenants remain in that class because of the favorableness of the terms they are able to make with the landlords. Some of these tenants succeed in saving money. Others live such a shiftless, hand-to-mouth existence that they show little evidence of ever being able to make much improvement in their condition. Perhaps the most striking examples of this class of tenants are to be found among the poorer negro tenants of the South. Since the owners of the more valuable farm land prefer to rent to the more capable

⁸⁵Census, 1910, V, 100.

tenants,³⁶ those who stand lowest in the scale of non-owning tenants will ordinarily tend to gravitate toward the less valuable lands.

Those tenants who regard tenant operation as a better means than land ownership for accumulating money have in their number some who are of high economic standing. They are often of such a character as to attract the attention of owners desiring the higher class of tenants. Once well established they are likely to prefer and to be able to secure longer leases and fairly permanent tenure. Tenants of this class are found mainly in the districts where the price of land is high in comparison with the value of its products.

On the whole, it seems that the transition of which tenancy is the middle stage has, for most farmers, been toward higher rather than toward lower economic conditions.³⁷ It is the prevailing belief, however, based upon statistics of tenant farms, "that the stepping-stones of tenancy are getting somewhat farther apart and the passage over them to ownership beyond becoming correspondingly more difficult of accomplishment."³⁸

RELATION OF TENURE TO FARM PRACTICE.

The tenancy practiced by part owners is renting in as true

³⁶Taylor, H. C. *Introduction to the Study of Agricultural Economics*, 59-65.

³⁷A certain amount of evidence on this problem is afforded by the statistics on ages of farm operators and home occupiers. The percentage of farmers who were renters exceeded 50 in the two age groups under 35 in 1890, 1900, and 1910. The older age-groups showed a constantly declining percentage of farmers who were renting, and a corresponding increase in the percentage of farmers who were owning. The indication is, therefore, that advance in age has been associated with advance in status of tenure. The percentage of ownership in the younger age-groups, however, was less in 1910 than in 1900 and less in 1900 than in 1890. It seems that the greater burden of the decline in ownership was being borne by the younger farmers.

The extent to which the age of a farmer affects the amount of mortgage encumbrance he carries on his farm is not so marked as the effect of age upon the tenure status. Owners 55 years old and over have very little mortgage encumbrance,— more at the last census than previously. The age-group with the highest percentage of owners encumbered in 1890 was that between 25 and 34, while in 1900 and 1910 the age group, 35 to 44, had the highest percentage, with an increasing concentration on it in 1910. See Census, 1900, Part II, ccxi; 1900, Bulletin on Age of Farmers, 9, 22.

³⁸Hibbard, B. H., in *Annals of the American Academy*, XL, 29-39.

a sense as that carried on by tenants proper. The part owners, however, are usually more fixed to the community and are bound by deed to a part of the land they operate. In the case of "estates" regard for the "old place" and for the other heirs may induce the heir in charge of the operations to treat the land he rents as well as that which he owns. The expectation of eventual ownership of the rented land is greater in the case of part owners than in the case of most tenants, and this exerts an influence in the direction of better treatment of the rented land. Farming by part owners, in such cases, differs little from that conducted by those owning all the land they operate.

At the twelfth census farms were classified according to their principal sources of income, and by various forms of tenure.³⁹ From this investigation it appears that in 1900 managerial operation was relatively most prominent in the case of farms whose principal source of income was fruits, dairy produce, rice, sugar, flowers, plants, and nursery products. Tenants were relatively most prominent in the production of vegetables, tobacco and cotton. In the case of hay and grain farms part owners and share tenants operated more than their share. Livestock farming was carried on by "owners-and-tenants",⁴⁰ by part owners and by owners, to a disproportionately large extent.

It appears that hay and grain farming was given greatest relative emphasis by the share tenants and part owners; that livestock raising was more largely practiced by the owners-and-tenants, owners proper, and part owners; and that dairying was carried on chiefly by the owners. The tenants, therefore, have been concentrating on the production of staple products, managers have preferred the lines requiring great emphasis on supervision of labor force, while owners have been associated with a more highly diversified and capitalized form of farming industry. From the point of view of farm practice, tenure is an expression of the adaptation of the operator to the requirements of the type of farming. On the other hand, there has doubtless been some adjustment of farm practice by the operators to suit the requirements of their form of tenure.

³⁹The percentage of farms listed under each principal source of income was as follows: hay and grain, 23.0; vegetables, 2.7; fruits, 1.4; livestock, 27.3; dairy produce, 6.2; tobacco, 1.9; cotton, 18.7; rice, 0.1; sugar, 0.1; flowers and plants, 0.1; nursery products, less than 0.1; and miscellaneous, 18.5. See Census, 1900, V, liii-lv.

⁴⁰"Owners-and-tenants" refers to cases where tenants and operating owners combine their efforts in the operation of farms.

Land makes demands upon farmers either for capital to own it or for capital and skill to operate it. High prices for the land do not in themselves induce tenant-farming,⁴¹ unless the purposes to which such land may be put are such that tenants can qualify as operators. If large-scale production is at a premium on the high-priced land, then the standardization of farming method and the costliness of farm ownership may encourage tenant cultivation. In any case, financial and technical qualifications of the tenants to carry on the type of farming to which the land is adapted are prerequisite to the prevalence of tenancy.

The importance to the tenant of technical knowledge and of capital goods is especially to be noted when there is a change in the type of farming prevailing in a region. The introduction of cereal growing into certain parts of the South has caused a temporary withdrawal of tenants from operation there.⁴² Cereal growing, where it is an established feature of the agriculture of a region, is ordinarily practiced to a high degree by tenants. As the methods of grain farming become widely known in the Southern districts introducing it and as investments in the special types of equipment become better understood, we may expect the same association of tenancy and cereal growing there as in other parts of the country.

Lack of adequate capital to invest in the ownership of land tends to increase the supply of tenants when the methods of farming the land are standardized and well known. Persons with adequate knowledge of farming method seek to manage, rent or own in part—possibly under mortgage—farms for the complete and unencumbered ownership of which they lack sufficient capital.

The importance of the influence of both these factors, the lack of capital for land purchase in increasing tenancy and the lack of operating capital and efficiency in decreasing tenancy, must continue to grow as heavier demands are made for capital and operating efficiency. The annual gain to the landlord from unearned increment must constitute a diminishing percentage of

⁴¹The price of land and the size of farms are given considerable emphasis in the writings of most of those treating the subject of tenancy. See particularly Taylor, H. C., *Introduction to the Study of Agricultural Economics*, 244-250; and Hibbard, B. H., *Annals of the American Academy*, XL, 29-39, and *Quarterly Journal of Economics*, XXV, 712-719; XXVI, 107-109, 364-369; XXVII, 483.

⁴²*Community Service Week in North Carolina*, 44.

the value of the land and of the total annual increase in the landlord's wealth.⁴³ Great emphasis must, therefore, be placed upon operating efficiency in increasing farm incomes. The landlords may be expected to apply more thorough-going tests to ascertain the farming ability of tenants. This will not only tend to hold tenancy in abeyance, but will accompany a regime of better farming by those operating under all forms of tenures.

TENURE AND THE EXPANSIBILITY OF THE FARM AREA

Land tenure may, in a general way, be regarded as affording an expression of the relation of the population to the supply of cultivatable land. The accompanying table affords some data on this relation. From 1850 to 1880 the acreage of improved land in American farms increased 151.9 per cent, while population increased 116.3 per cent. The improved acreage per capita was 4.9 in 1850 and 5.7 in 1880. From 1880 to 1910 the population increased 83.4, while the improved farm acreage increased 68.0

PER CAPITA ACREAGE OF LAND IN FARMS, AND PERCENTAGE OF INCREASE OVER PRECEDING CENSUS RETURNS IN POPULATION, NUMBER OF FARMS, ACREAGE OF FARM LAND AND VALUE OF FARM PROPERTY, UNITED STATES, 1850-1910.⁴⁴

Census Year	Per capita acreage of land in farms		Percentage of increase over preceding census							
	Total	Im- proved	Population	Number of farms	Acreage of land in farms		Value of Farm Property			
					Total	Im- proved	Total	Land and buildings	Implements and machinery	Live stock
1910	9.6	5.2	21.0	10.9	4.8	15.4	100.5	109.5	68.7	60.1
1900	11.0	5.5	20.7	25.7	34.6	15.9	27.1	25.1	51.7	33.2
1890	9.9	5.7	25.5	13.9	16.3	26.6	32.0	30.2	21.6	45.4
1880	10.7	5.7	30.1	50.7	31.5	50.7	36.2	37.0	50.1	28.2
1870	10.6	4.9	22.6	30.1	0.1	15.8	12.1	12.0	10.1	12.9
1860	13.0	5.2	35.6	41.1	38.7	44.3	101.2	103.1	63.4	100.2
1850	12.7	4.9	-----	-----	-----	-----	-----	-----	-----	-----

PERCENTAGE OF INCREASE OVER THIRD PRECEDING CENSUS.

1880-1910	83.4	58.7	63.9	68.0	236.5	241.3	221.2	212.3
1850-1880	116.3	176.7	82.6	151.9	207.0	211.7	168.2	189.0

⁴³See below, pp. 123, 124.

⁴⁴Census, 1910, V, 51, 57.

percent and the improved acreage per capita declined from 5.7 to 5.2.

But for an extraordinary expansion in the unimproved acreage between 1890 and 1900, the acreage of all land in farms per capita would probably have shown a tendency to decline after 1880 similar to that shown by the improved acreage. The expansion of the farm area between 1890 and 1900 was probably due, in a measure, to the belief on the part of some persons that it was best to get desirable new land before it became too late.⁴⁵ From 1900 to 1910 the expansion of the farm area was hardly possible without resort to somewhat inferior types of soil. As a consequence increased attention was paid to improving the acreage already in farms. The relative increase in the ratio of improved land to all farm land was greater between 1900 and 1910 than for any decade ending after 1880. That there was an increased demand for farm products in comparison with the area supplying them is indicated by the rise in price of farm products. This affected the profits of farming and helped augment the price of farm land. The relative increase in the value of land and buildings per acre was greater during the decade, 1900 to 1910, than during any other census decade of the sixty years.

The effect upon land prices was probably greatest in the case of land producing those staple products the area of whose production had previously been expanding more nearly in response to the demand for the products. The effect was not so important, therefore, in the case of cotton lands, but was very pronounced in the case of land producing the important cereals.

The relation of land prices to tenure during the recent decades can be best examined, therefore, in the case of cereal-growing districts. That will be done here for the state of Illinois.

⁴⁵The percentage of the land area in farms in 1910 was 46.2, 1900, 44.1, and 1890, 32.7. More significance is to be attached to the smallness of the increase between 1900 and 1910, perhaps, than to the fact that over half of the land had not yet been included in farms.

CHAPTER II

TENDENCIES IN THE AGRICULTURAL ECONOMY OF ILLINOIS

It is impossible to understand the agricultural economy of a state like Illinois without keeping constantly in mind the physical features and soil conditions that give character to the state.

The surface of Illinois, for the most part, slopes gently from the north to the south, except in the extreme Southern part of the state where a spur of the Ozark hills rises rather abruptly from the plains to an altitude of approximately one thousand feet. The altitude along the rivers in the Southern part of the state is about three hundred feet above sea level, in the Central part between seven and eight hundred feet, and in the Northern part about one thousand feet.

PHYSIOGRAPHIC INFLUENCES

The state has a variety of soils, as indicated by the soil map.¹ Unglaciaded areas are to be found in three portions of the state—in the Southern part, where the Ozark hills appear to have obstructed the progress of the glaciers; in the point of land between the Illinois and Mississippi rivers; and in the North-western corner of the state. All the rest of the state has been glaciaded at least once, and some sections were covered a number of times.

The profound influence of the glaciers upon Illinois agriculture was exerted through their effect upon the topography and to a less extent, perhaps, upon the quality of the soil.² The difference in yields per acre in the various glaciaded districts is considerable, but the difference in land prices is much greater. The unglaciaded regions, being more broken, are less suited to

¹Hopkins, C. G., *The Fertility in Illinois Soils*, following 192.

²The dominant soil type in all but Southern Illinois, is a dark brown to black silty loam underlaid by a yellow gray, or drab stiff silty loam subsoil. Associated with it, and particularly in the timbered areas along the streams, is a yellow to yellowish-brown silty loam surface underlaid by a yellow silty subsoil. In Southern Illinois the deposit of loess over the underlying glacial materials is thin. The soil in Southern Illinois is principally a gray silt loam underlaid by a stiff gray silty clay. See Census, 1910, V, 897-898.

cultivation by modern farm machinery and to hauling heavy loads. The glaciated regions have better water supply, and suffer less change in the fertility of the soil because of erosion.³

The extent of the timber growth in the various parts of the state affords a good index of the general physiographic conditions. The mere presence of natural timbers usually implies that the land is either broken or swampy. This fact alone would tend to cause the timber land to be less easily cultivated, even when cleared. There is the further fact that timber operated against the accumulation of the organic elements so important for the growing of crops.⁴ This is attested by the fact that while the productiveness of the timber land was somewhat improved after it was cleared, the distinction between the old timber land and the old prairie land still stands out with appreciable sharpness. Just what part of the difference in fertility in different sections is due to the fact of former timber influence and what portion is to be explained by geological formation, is, of course, indeterminate. The sharpest line of demarcation between soils in Illinois, when considered from the point of view of productiveness, is found, however, where the same line divides an old timbered from an old prairie district, and at the same time a district of a later from that of an earlier glaciation.⁵ This line may be roughly indicated as running from East St. Louis to Shelbyville, the seat of Shelby county, and

³Mosier, J. G., Effect of Glaciers on Illinois Agriculture, in *Illinois Agriculturist*, June, 1914, 533, 534.

⁴Upon the withdrawal of the last glacial sheet the assumption is that the grasses were first among the vegetable growths to cover the land of the state. The area covered by trees, first limited to the unglaciated district, came to include more and more of the glaciated soil. The previous occupation of the land by the grasses made it more difficult for the seeds of trees to get into the soil, and the fires which burnt the grass periodically tended to destroy the incipient timber growth. The organic elements which worked into the soil as a consequence of the decay of the grasses are said to have made the soil still less hospitable to the growth of timber. The hardier, scrubby types of woodland growth could make their way somewhat better through this soil than the more characteristic types of timber. As the hardier types gained possession of the land, they reduced the hostile elements and made it possible for the other types to follow them. The expansion of the timber over the grass lands must have been very slow for it lacked much of being complete when the settlement of the prairie stopped it.

⁵Hall and Ingall, *Forest Conditions in Illinois*, 195.

thence east to the northwest corner of Clark county. South of this line the country was once nearly all covered with timber, while to the north the original forest was, for the most part, confined to the belts following the principal waterways.⁶

Timber was not only an index and feature of the physiography of the Illinois country, but was important in its influence upon early settlement and pioneer farm economy. The decided preference of the early settlers for woodland is supported by evidence in the recorded history of nearly every Illinois county.⁷ For the raising of hogs the mast of the woods and for the raising of cattle woodland shade and pasture were, during most of the year, superior to the natural or cultivated products which might, with satisfactory drainage, have been produced on the prairie. To be sure, a certain amount of hay and grain was necessary to tide the horses, hogs and cattle over the winter season, and some grain and hemp or flax was needed to feed and clothe the settlers themselves. The amount of arable

⁶*Ibid.*

⁷This is explained by a number of facts. The early settler had to have some land which was higher than the general level. This was necessary, first, to escape the ponds which covered the flat lands during the rainy seasons, producing malaria and making travel in and out difficult; and second, to be safe from the fires which swept the prairies in the dry seasons. Where high spots were found, timber was usually on them. The better drained land was ordinarily more broken and timbered. The woods afforded the source of fuel and of materials for stockades, houses, barns and fences, the overland transportation of which, whether as logs or rails, was a difficult matter, particularly in the wet seasons. The woods were usually to be found associated with rivers, springs and salt licks. The rivers were often the avenues by means of which settlers pushed on and by which they communicated with the markets and post offices. The springs afforded the source of water for the settlers and for the animals they kept or hunted. The salt licks provided a necessary article for the household and for the domestic animals, and of all places in the woods were probably the most strategic for killing wild game. Furthermore, the surrounding woods provided shelter from the extremes of the weather for both man and beast.

Among settlers for whom the woodland held such a monopoly of the indispensable conditions of pioneer life it is little wonder that a prejudice arose against the open prairie. Some of this prejudice may have been brought with them from their former homes farther East. The kind of economic life to which lack of facilities for drainage and transportation subjected them would only tend to strengthen such prejudice.

land sufficient to these purposes, however, was easily cleared, or fenced in from a natural clearing in the woods or from the edge of the prairie. It was the timber, nevertheless, that was the indispensable basis of the pioneer agricultural economy, while the prairie, beyond that which lay contiguous to the timber, afforded menaces by fire and by water, in the shape of disease and death. There is little wonder, then, that the prairie was looked upon by the pioneers as a hopeless waste.⁸

In order to sketch the development of Illinois we may employ several lines of census data.

POPULATION AND AGRICULTURE

From the population statistics of the Federal census and from the data of the quinquennial census conducted by the state itself a fair notion of the rate of this development may be drawn.

The population multiplied 459 times between 1810 and 1910.⁹ The periods in which the absolute growth in population was most marked were those extending from 1850 to 1870, and from 1890 to 1910. In relative increase the decades prior to 1840 took the lead, although a remarkable increase occurred from 1850 to 1860. The period of least relative increase in population was the one between 1900 and 1910. Until 1870 the rate of increase in population in Illinois exceeded that of the nation as a whole during each decade. The same thing was true of the decade, 1890 to 1900. From 1870 to 1890 and from 1900 to 1910, however, the rate of increase of population fell below

⁸It is sometimes said that the early settlers held the theory that the prairie was less fertile than the timber land, because the prairie grew vegetation that was much smaller. Owing to the conditions confronting the settlers, however, this theory could not have restrained them much until the improvements took place in transportation, in agricultural machinery and in drainage. When it became possible to till the land, to produce extensively and to market products other than those which could be driven on foot, cultivation of the prairies became at once possible and profitable. It is, of course, natural that some farmers should have insisted on clearing timber land, thinking that they would thus farm the richest land, when a vast area of richer prairie lay all ready to be tilled and broken up. But the view that the prairies were less fertile than the timber land probably did not restrain prairie cultivation to any great extent.

⁹See Census, 1910, I, 24 and V, 436 for authority for all statements in this paragraph.

that of the United States. The percentage of increase in the population of Illinois was less during the decade, 1900 to 1910, than during any other decade in the history of the state. Taken as a whole the growth of population was very rapid, especially until about 1870.

It is possible to determine the extent of the agricultural population of the state in only a rough way. Statistics of occupations were taken in 1820 and at each census from 1840 to 1910. The table on the next page has been prepared from the limited data at hand.

In Illinois in 1820, and from 1870 to 1910 the percentage of population engaged at gainful occupations was below that of the entire country, rising steadily, however, from 24.7 in 1820 to 40.7 in 1910.

The percentage of the occupied population of Illinois engaged in agriculture was 90.9 in 1820, and decreased to 19.0 in 1910. The virtual absence of slaves in Illinois in 1850 and 1860 leaves a greater comparative value in the statistics of occupations for those dates in the case of Illinois than in the case of the country as a whole. The decline in the percentage of occupied persons who were in agriculture was less abrupt in Illinois between 1860 and 1870. This is to be explained mostly by the fact that the number of persons in Illinois agriculture underwent its greatest decennial increase during that period. Up to and including 1870 a larger part of the population had been engaged in agriculture in Illinois than in the rest of the country. Between 1870 and 1880, however, the growth of other industries in the state was so marked, and since 1880, the number engaged in agriculture has undergone so little change that from 1880 to 1910 the percentage of population devoted to agriculture in Illinois was less than the corresponding percentage for the United States, and was decreasing much more rapidly.

The changes in the population of Illinois from 1890 to 1910 are analyzed in a table of the thirteenth census.¹⁰ The data show that, while the urban population has been growing both relatively and absolutely, and while the small town population has been growing absolutely, the population in strictly rural territory has been both relatively and absolutely declining.¹¹

¹⁰Census, 1910, II, 438.

¹¹The percentage of the total population of Illinois in urban territory was 44.8 in 1890, 54.3 in 1900, and 61.7 in 1910; in places having 2500 or less, 12.7 in 1890, 12.6 in 1900 and 12.0 in 1910; and in other rural territory, 42.5 in 1890, 33.2 in 1900, and 26.4 in 1910.

THE NUMBER OF THE TOTAL POPULATION, OF THOSE ENGAGED IN GAINFUL OCCUPATIONS AND OF THOSE IN AGRICULTURE, ILLINOIS; AND THE PERCENTAGE OF TOTAL POPULATION OCCUPIED, AND OF OCCUPIED POPULATION IN AGRICULTURE, UNITED STATES AND ILLINOIS, 1820, 1840-1910.¹²

Census year	Population	Number in all occupations	Persons in agriculture ¹⁸	Percentage of			
				Population occupied		Occupied population in agriculture	
				United States ¹⁴	Illinois	United States ¹⁴	Illinois
1910	5,638,591	2,296,778 ¹⁵	444,242	41.5	40.7	32.4	19.3
1900	4,821,550	1,840,040 ¹⁵	461,015	38.3	37.4	35.3	25.6
1890	3,826,352	1,353,559 ¹⁵	430,134	36.1	35.4	37.2	31.8
1880	3,077,871	999,780 ¹⁵	436,312	34.7	32.5	44.1	43.6
1870	2,539,891	742,015 ¹⁵	376,325	32.4	29.2	47.4	50.7
1860	1,711,951	395,937 ¹⁶	301,893	26.4	23.4	40.4	51.0
1850	851,470	215,359 ¹⁷	141,099	23.2	25.3	44.8	65.5
1840	476,183	124,204 ¹⁸	105,337	21.8	26.1	77.5	84.8
1820	55,162	13,635 ¹⁸	12,395	25.8	24.7	83.0	90.0

¹²Statistics for each date were obtained as follows:

1910: Census, 1910, I, 30-31, and IV, 91, 97.

1900, 1890, 1880 and 1870; Census, 1900, Occupations, Introduction, 1 (following xlix); also Census, 1900, Occupations, 124; 1890, II, Population, 304, 314; and 1880, Population, 777, 793.

1870: Census, 1870, Population and Social Statistics, 704, 713.

1860 and 1850: Census, 1900, Occupations, Introduction, liii; also 1860, Population, 104-105, 680, and 1850, lxx-lxxix, 727.

1840 and 1820: Census, 1900, Occupations, Introduction, xxx; also 1840, 396 and 475, and 1820, Sheet 40.

¹³Exclusive of lumbermen, raftsmen, woodchoppers, apiarists, fishermen, oystermen, foresters, owners and managers of log and timber camps, and those in other agricultural and animal husbandry pursuits, so far as separately reported.

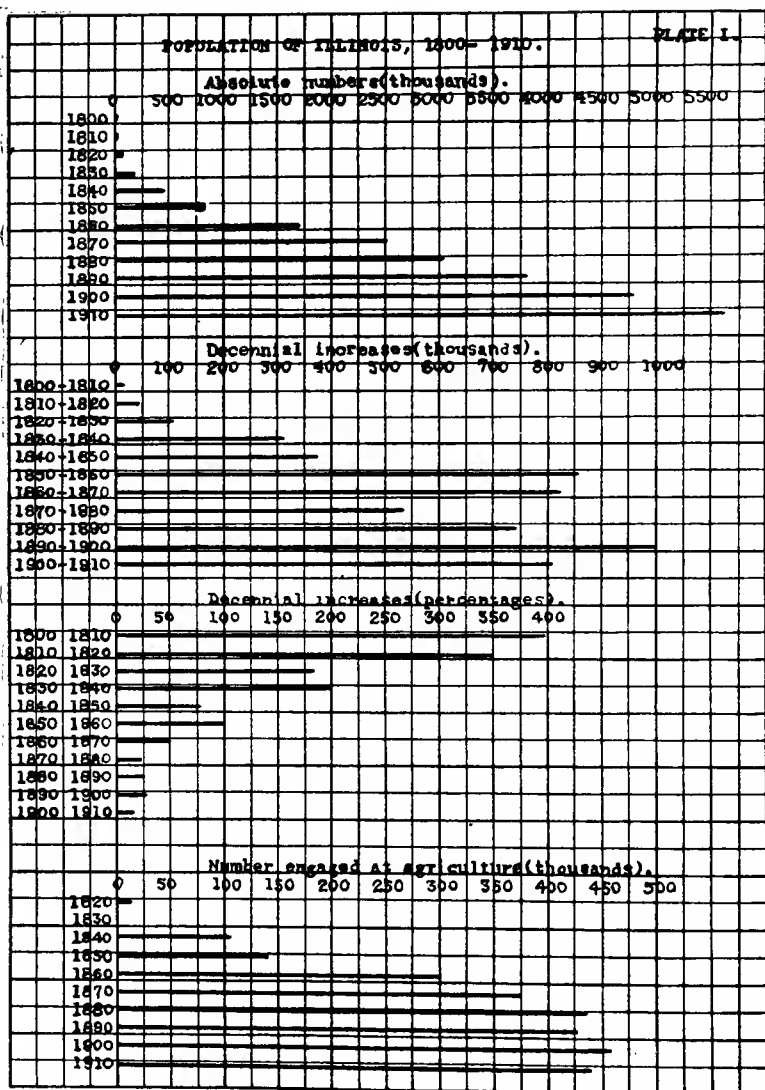
¹⁴See a table by the author in Bogart and Thompson: *Readings in the Economic History of the United States*, 608.

¹⁵Males and females over ten years of age.

¹⁶Free males and females over fifteen years of age.

¹⁷Free males over fifteen years of age.

¹⁸Males and females, free and slave, all ages.



The number of inhabitants of strictly rural territory per square mile of the total land area was 29.1 in 1890 and 24.8 in 1910. There were 16.2 per cent more people in the strictly rural territory in 1890 than in 1910.¹⁹

Of the thirty-two million acres of land in Illinois farms probably not over two million were taken up by 1820.²⁰ During the next thirty years approximately ten million acres were added to the farm area. Most of the land taken into Illinois farms during the first half of the nineteenth century was in the wooded districts of the state.²¹

Beginning with 1850 we have United States census data on the total and improved farm acreage and on the number of farms for each census date.

The percentage of the land area in farms increased from 33.6 in 1850 to 91.4 in 1900, but decreased to 90.7 in 1910.²² The percentage of farm land that was improved increased steadily from 41.9 in 1850 to 86.2 in 1910.

Until 1880 the growth of the area of land in farms was rapid, the total increase during the period, 1850 to 1880, being 163.1 per cent. During the thirty years between 1880 and 1910 the area of land in farms increased only 2.7 per cent, and actually declined during two decades. The acreage of improved land increased 418.2 per cent between 1850 and 1880, and only 7.4 per cent from 1880 to 1910. The farms were decreasing in average size from 1850 to 1880, but have been increasing somewhat since 1880.²³

The year, 1880, therefore, stands as the turning point in the direction in which the average acreage of farms was moving.

¹⁹See below, pp. 113-116.

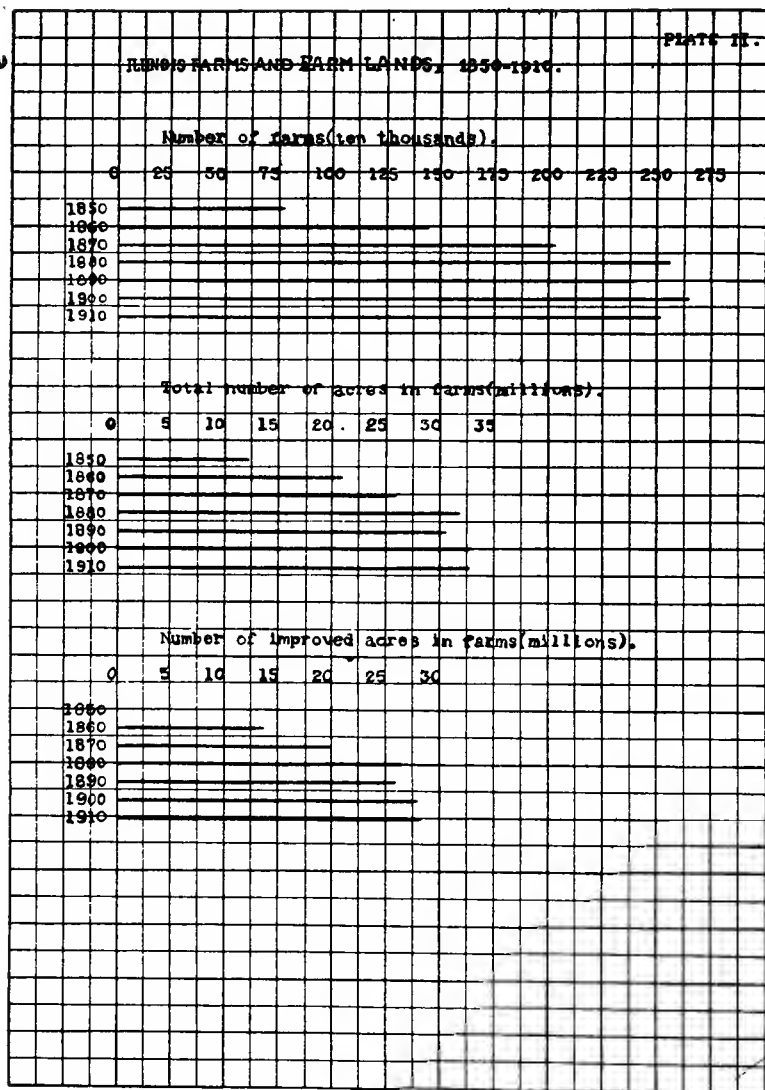
²⁰In American State Papers, Public Lands, Vol. III, 533, it appears that the five land agencies in Illinois, located at Shawneetown, Kaskaskia, Edwardsville, Palestine, and Vandalia, had reported to October 1, 1821, as follows:

Lands surveyed.....	13,799,040 acres
Reservations—private claims	529,046 acres
Amount sold	1,458,992 acres
Unsold	12,160,992 acres

²¹See below, p. 43.

²²Census, 1910, V, 69; VI, 412, 413.

²³To analyze these changes in greater detail, reference may be had to the Census, 1910, VI, 415; 1890, Agriculture, 118; and 1880, Agriculture, 26, 27. Such an analysis will show that from 1880 to 1910 the percentage of farms under 20 acres in size increased from 4.9 to 8.0; those between



It also marks the end of the large relative decennial increases in the total and improved farm acreages, in the number of farms and in the number of persons engaged in agriculture. Until 1880 the changes in Illinois agriculture were mainly in the area of farm land and the number of farms and farmers; since 1880 the greater changes have been in productions and values.

THE VALUE OF FARM PROPERTY

To illustrate the tendencies in the elements which went to make up the values in farm properties, the following table has been prepared.

AVERAGE VALUE PER ACRE OF ALL FARM PROPERTY, AND OF THE VARIOUS ELEMENTS OF FARM PROPERTY, ILLINOIS, 1850-1910.²⁴

Census date	All farm property	Per cent of increase	Land and buildings ²⁵	Per cent of increase	Implements and mach'y	Per cent of increase	Live stock	Per cent of increase	Index number ²⁶
1910	\$120.08	96.5	\$108.32	101.2	\$2.27	65.7	\$9.49	60.6	107.9
1900	61.12	26.2	53.84	30.0	1.37	21.2	5.91	0.2	91.2
1890	48.45	30.5	41.41	29.9	1.13	5.6	5.92	41.6	92.3
1880	37.12	8.7	31.87	12.0	1.07	0.0	4.18	9.7	106.9
1870 ²⁷	34.15	43.2	28.45	45.4	1.07	30.5	4.63	33.4	117.3
1860	23.85	126.5	19.56	144.8	0.82	54.7	3.47	72.6	100.0
1850	10.53	-----	7.49	-----	0.53	-----	2.01	-----	101.0

20 and 100 acres declined from 47.9 to 36.2; those between 100 and 500 acres increased from 45.6 to 54.9, and those over 500 acres declined from 1.6 to 0.8. In 1910 approximately one-third of the farms had between 100 and 175 acres.

²⁴Census, 1910, VI, 413.

²⁵Land and improvements, except buildings: 1910, \$95.02; 1900, \$46.17; percentage of increase, 104.3.

Buildings alone: 1910, \$13.30; 1900, \$6.67; percentage of increase, 70.6.

²⁶The index numbers presented here follow the Falkner series from 1860 to 1900. A number for 1850 is supplied from the calculations of G. H. Knibbs (quoted by Irving Fisher). A ratio of comparison between the Falkner series and that used in the investigation of the United States Department of Labor was derived for 1890 and 1900 and a number as of the Falkner series calculated for 1910. (See Fisher, Irving: *Why the Dollar is Shrinking*, 150-163; *Aldrich Report on Wholesale Prices, Wages, and Transportation*; *Bulletin of the Bureau of Labor Statistics*, Wholesale Prices, 1890 to 1912).

²⁷Computed gold values, being 80 per cent of the currency values reported.

The data indicate a persistent rise in the value per acre of all the properties. The upward movement may have been promoted during the decades, 1860 to 1870 and 1900 to 1910, by the fall in the purchasing power of money, estimated at 17.3 and 18.3 per cent respectively. The upward trend of farm value, however, was much more rapid than that of the general price level. During the period, 1870 to 1900, farm property values increased in spite of the fall of 22.3 per cent in the general price level.

The largest decennial increments of value in the case of each item of property took place between 1900 and 1910, and the percentages of increase during that decade, even after allowance is made for the rise in the general price level, were greater than those of any other decade since 1860. In both absolute and relative increase in the case of each item the decennium, 1870 to 1880, stands lowest among the decades. During the period, 1870 to 1890, the increases in value were small compared with those characterizing similar periods preceding and following it. During the thirty-year period, 1850 to 1880, the increase in the value of land and buildings exceeded that which took place between 1880 and 1910, while the increase in the value of implements and machinery and of live stock was greater during the latter period. During the entire sixty years there was an increase in the value of all farm property per acre amounting to 1040 per cent. The increase in the case of each item of property was as follows: land and buildings, 1256 per cent; implements and machinery, 328; and live stock, 372.

The rate of increase in the value of farm property seems to have been accelerated about 1880 and again about 1900. This was true in the case of land more markedly than in the case of other kinds of farm property.

No less significant, perhaps, is the change in the relative prominence of the different forms of farm property in Illinois. The prominence of implements and machinery and of live stock as measured by their share in the total value of all farm property was two and a half times greater in 1850 than in 1910.²⁸ The part taken by the value of the land, however, rose from three-fourths in 1850 to nine-tenths in 1910.

²⁸Census, 1910, V, 93.

SOME CHANGES IN FARM PRACTICE

A general notion of the character of the farming practice in Illinois may be derived from the United States census reports. It is not possible, however, to make thorough-going comparisons with conditions prior to 1880 because of the absence of data on crop acreages before the tenth census. Production statistics of one kind or another are provided as early as 1840. The data on land in farms began with 1850 and it will be simpler, therefore, to limit the comparisons in most cases to the dates, 1850 and 1910.

A few comparisons based on an equal area of farm land²⁹ will suffice to show the main changes that have taken place with respect to some features of Illinois agriculture.

The number of cattle remained almost exactly the same. The number of dairy cattle, however, increased about 25 per cent. The number of horses doubled, and the number of mules, asses and burros increased fourfold. The number of swine remained about constant, while the number of sheep declined in 1910 to less than half the number reported for 1850.

The production of butter on farms increased between 1850 and 1880, and, though less in 1910 than in 1880, was 40 per cent greater in 1910 than in 1850. Cheese production on farms, while occupying a considerable place in 1850, had almost disappeared in 1910. The same thing is true of maple sugar. The production of tobacco and of wool was greater in 1880 than in 1850, but the figures for 1910 were smaller than those employed for either of the other dates. The production of Irish potatoes increased nearly once again during the sixty year period.

All of the cereals except barley had larger aggregate productions in Illinois in 1910 than in 1850.³⁰ The increase in the production of oats and rye during the sixty years was relatively greater than the increase in the area of all farm land, but was less than the increase in the area of improved land. The increase in the production of buckwheat was a little less than twice as great as that of the improved acreage. The corn and wheat pro-

²⁹The basis employed here includes both improved and unimproved land. Were only improved farm land considered, the figures for 1850 would be multiplied by 2.40, those for 1880 by 1.21, and those for 1910 by 1.16.

³⁰Census, 1910, VI, 446; 1900, VI, 62-93.

duction underwent a most phenomenal growth, increasing nearly three times as rapidly as the area of improved land. It is evident that cereals have been occupying an increasingly prominent place in Illinois agriculture.

The relative prominence of the different crops can be measured for the dates from 1840 to 1870 only on the basis of production. Beginning with 1880, however, the census reports show the number of acres devoted to the various crops.

The percentage of improved land devoted to hay and forage decreased between 1889 and 1909, and the percentage of improved land devoted to other crops decreased from 11.3 in 1899 to 9.2 in 1909.³¹ The percentage of improved land occupied by cereal crops in Illinois in 1879 was exceeded by the percentage in Nebraska, Minnesota, and Iowa; in 1889 by North Dakota and Minnesota; in 1899, by Nebraska and Minnesota; but in 1909 the percentage of improved land devoted to cereals in Illinois exceeded that of any other state.

Though data based on acreage are lacking for the period preceding the tenth census the statistics of production already cited seem to confirm the impression that the concentration on cereal-farming in Illinois received its main impetus about 1880. Up to that time the cereal productions had grown at a slower pace than that with which the improved acreage had expanded. From 1880 on, however, both acreages and productions of cereal crops have grown faster than the corresponding increase in the area of improved farm land.

A strong factor underlying the change in the direction and degree of agricultural tendencies in Illinois about 1880 is the increased cost of adding land to the farm area of the United States. The result was an increasing pressure and premium on the food-producing land of the country. The effect is seen in the acceleration given to the rise in farm property values and in the concentration on grain production on lands adapted to that branch of agriculture.

³¹Census, 1910, V, 554, 556.

CHAPTER III

CHANGES IN LAND TENURE IN ILLINOIS

The early agricultural economy described in the previous chapter may be regarded as one in which there existed a heavy dependence upon timber. As late as 1850 possibly 45 per cent of the land in farms was "woodland".¹ By 1870 the percentage of farm land classed as woodland had dropped to 20, by 1880 to less than 16, and by 1910, to 10.² Although timber determined the desirability of a district for occupancy by pioneers, it has come to be regarded as more or less in the way, except that a small amount is desirable for use as shade, ornament and source of wood for farm purposes.

The days when the farming of the state was based upon woodland must have been characterized by a very small amount of tenant farming. Land was then plentiful not only in other parts of the continent, but even within the state itself. The land was taken up pretty generally by heads of families seeking to establish farm homes. Some renting was carried on in the

¹In 1850 58.1 per cent of the farm land of Illinois was "unimproved". Certainly as much as three-fourths of this unimproved land was "woodland". The percentage of unimproved land classified as woodland in 1870 was 77.7, in 1880, 89.1 and in 1910, 70.7. The absolute figures were as follows:

Acreages	1910	1880	1870
Woodland	3,147,879	4,935,575	5,061,578
Other unimproved	1,326,735	622,916	1,491,331
Total unimproved	4,474,614	5,558,491	6,552,909

Census, 1910, V, 77; and 1880, Agriculture, 3, 11.

²The original timbered area of the state is said to have comprised about 30 per cent of the total land area, or about 10 or 11 million acres. At least 4½ or 5 million acres of timber land were in farms in 1850. In 1910 about 3 million acres of the old timber land were still classed as farm land, and at least 4½ million more of the old timber acreage must have been chiefly in the part called "improved", while the part of the old timber area in farms probably rose from about half in 1850 to three-fourths in 1910. At the latter date a large proportion of it had been cleared and converted into "improved" land.

case of tracts owned by non-residents, but under the circumstances the rents charged were usually very small.³

TENURE STATISTICS FOR THE STATE AS A WHOLE

The census of 1880 showed the number of tenant farms in Illinois to be larger than in any other state of the Union, and considerable capital was made of the "eighty thousand tenants"⁴ then operating Illinois farms. In 1910, Illinois had 104,379 tenant farms, although her rank among the states in this respect had sunk to eighth.⁵ Texas, with 219,575 tenant farms, held first rank. At that date Illinois was second in the number of white tenants, having 103,761 against 170,970 in the state of Texas.⁶ Illinois stood eleventh in the percentage of all farms operated by tenants both in 1880 and in 1910.⁷ The percentage in Illinois in 1910 was 41.4, while in Mississippi, where the percentage was highest, it was 66.1. In the percentage of tenancy among white farmers, Illinois with 41.4 ranked sixth in 1910, Oklahoma with 55.8 holding first rank.⁸ In the farm acreage hired in 1910, Illinois stood third with 51.0 per cent.⁹ The percentage in Delaware was 52.8 and in Oklahoma exceeded 60.

The table on the following page summarizes for the state as a whole the available statistics on farm tenure.

It will be observed that the number of farms decreased between 1880 and 1910, while the farm acreage increased. The increase in the average size of farms was from 123.8 in 1880 to

³See Buck, S. J.: *Pioneer Letters of Gersham Flagg*, 35, 40, 46; Sheftel, Yetta, *The Settlement of the Military Tract*, Chapters I and II (in manuscript); Gerhard, Fred., *Illinois as It Is*, 404.

The rents were not low, because of the relative inferiority of the lands first taken up. As Walker points out, the lands first taken up, while now known to be chemically and otherwise inferior, were then economically superior. It was only when timber farm economy gave way to prairie farm economy that this economic superiority of the lands earliest occupied was lost.

⁴*North American Review*: CXLII, 52-67, 153-158, 246-253, 387-401.

⁵In 1890 the number of tenants in Illinois was the third largest among the states, and in 1900 it was fifth in order.

⁶The same order held also in 1900, the only other date at which white and colored tenants were reported separately.

⁷In 1890 the rank of Illinois was tenth, and in 1900, thirteenth.

⁸In 1900 a similar comparison shows the rank of Illinois as eleventh.

⁹In 1900 only Delaware had a larger percentage of her farm lands rated under lease than Illinois. See above, p. 17, note 20.

LAND TENURE IN ILLINOIS, 1880-1910.

<i>Number of farms</i> ¹⁰	1910	1900	1890	1880
Total.....	251,872	264,151	240,681	255,741
Operated by				
Owners and part owners.....	145,107	158,503	{ 158,848 ¹¹	{ 175,497 ¹¹
Owners proper.....	107,300	124,128		
Part owners.....	37,807	34,375		
Managers.....	2,386	1,950		
Tenants.....	104,379	103,698	81,833 ¹¹	80,244 ¹¹
<i>Percentage of farms</i>				
Operated by				
Tenants.....	41.44	39.26	34.00	31.38
Owners and part owners.....	57.61	60.00	{ 66.00	{ 68.62
Owners proper.....	42.60	46.99		
Part owners.....	15.01	13.01		
Managers.....	0.95	0.74		
<i>Number of acres in farms</i> ¹²				
Total.....	32,522,937	32,794,728	30,498,277	31,673,645
Operated by				
Managers.....	15,198,315	17,506,064	....	....
Tenants.....	14,177,411	12,668,748	....	....
Owners and part owners.....	17,787,063	19,671,602	....	....
Owners proper ¹³	12,208,930	14,758,439	....	....
Part owners.....	5,578,133 ¹⁴	4,913,163	....	....
Hired by part owners.....	2,414,448 ¹⁴	2,165,538	....	....
Owned by part owners.....	2,989,385 ¹⁴	2,747,625	....	....
Hired by tenants and part owners.....	16,591,859	14,834,286	....	....
Owned by owners proper and part owners.....	558,463	454,378	....	....
<i>Percentage of farm acres</i>				
Operated by				
Managers.....	1.72	1.39	....	....
Tenants.....	43.59	38.63	....	....
Owners and part owners.....	54.69	59.98	....	....
Owners proper.....	37.54	45.00	....	....
Part owners.....	17.15	14.98	....	....
Hired by part owners.....	7.42	6.60	....	....
Owned by part owners.....	9.73	8.38	....	....
Hired by tenants and part owners.....	51.01	45.23	....	....
Owned by owners and part owners.....	47.27	53.38	....	....

¹⁰Census, 1910, VI, 413.¹¹Part owners and managers were not separately classified in the

129.1 in 1910.¹⁵ The number of tenant farms increased from 80,244 to 104,379, while the number of farms operated by owners, part owners and managers, decreased from 175,479 to 147,493.¹⁶ The percentage of all farms operated by tenants rose from 31.38 in 1880 to 41.44 in 1910. The percentage of the farm acreage operated by tenants proper was 43.59 in 1910, while that hired by part owners was 7.42. The percentage of farm land operated under lease in 1910 was, therefore, 51.01.

The following table will show more definitely how the changes in farm and land tenure varied from decade to decade.

It appears that operation by owners decreased while operation by tenants increased during each decennial period. Between 1880 and 1890 the change lay in a decline in the number of owners rather than in an increase in the number of tenants. During the decade, 1890 to 1900, the reverse was the case. The number of farms operated by owners remained practically the same, while the number operated by tenants underwent a very large increase. During the decade, 1900 to 1910,

reports for these dates, and were included in most cases, perhaps, with owners rather than with tenants.

¹²Census, 1910, VI, 412, 414; 1900, V, 308.

¹³Author's calculation.

¹⁴Unpublished data were received from the census bureau and modified to repair the omission of data from Carroll, Lee and Massac counties. The percentage of the land in the farms of part owners operated by them under lease and under deed was assumed to be the same as the corresponding percentages in the other 99 counties of the state.

¹⁵See below, p. 87.

¹⁶The number of persons in agriculture in Illinois (See above, p. 35) exceeded the number of farms by 180,571 in 1880, 189,453 in 1890, 196,863 in 1900 and 192,370 in 1910. For each 10,000 persons in Illinois agriculture there were 4139 of these persons without tenure in 1880, 4405 in 1890, 4271 in 1900 and 4334 in 1910. In a similar number there were 1839 tenants in 1880, 1902 in 1890, 2240 in 1900 and 2350 in 1910. Likewise there were 4022 owners in 1880, 3693 in 1890, 3483 in 1900 and 3320 in 1910. In 1900 there were 746 part owners and 42 managers for each 10,000 persons engaged in agriculture in the state. In 1910 the figures were 851 and 54, respectively.

It appears, therefore, that the owners were the only persons in Illinois agriculture to decrease in relative numbers. Of the remaining classes, the ranks of the tenants received the largest relative number of accessions.

the number of tenant farms remained practically the same, while there was a sharp decline in the number of farms operated by owners.

Most of the increase of 31.8 per cent in the relative prominence of tenant operators took place during the decade, 1890 to 1900, while the decennium, 1900 to 1910, was characterized by the smallest increase of any decade since 1880.

When, however, the change in tenancy is expressed in terms of acreages, it is seen that the increase in the hiring of land between 1900 and 1910 was not so small. The number of acres hired increased 1,757,573, 12.7 per cent of the hired acreage in 1900. There was a decline of 550,176 in the the total farm acreage, so that the number of acres operated by their owners decreased 2,307,749, or 13.2 per cent.

The statistics usually employed—those based on the number of farms—indicate that the percentage of tenancy was 39.3 in

PERCENTAGE OF CHANGE IN THE ABSOLUTE NUMBER AND IN THE NUMBER PER 100 OF FARM OPERATORS, AND OF FARM ACRES OPERATED BY VARIOUS KINDS OF OPERATORS, ILLINOIS, 1880-1910.¹⁷

Basis and item	Direction and percentage of change			
	1880 — 1910	1900— 1910	1890— 1900	1880— 1890
Absolute number				
Farm operators				
Owners ¹⁸	—16.0	—8.5	—0.2	—9.5
Tenants	+30.1	+0.6	+26.7	+2.0
Farm acres				
Deedholders ¹⁹ .....	.....	—13.2	.....	.....
Lessees ²⁰ .....	.....	+12.7	.....	.....
Number per 1000				
Farm operators				
Owners ¹⁸	—14.7	—3.6	—8.0	—3.8
Tenants	+31.8	+5.3	+15.6	+8.3
Farm acres				
Deedholders ¹⁹ .....	.....	—11.5	.....	.....
Lessees ²⁰ .....	.....	+12.8	.....	.....

¹⁷Based on data, above, p. 45.

¹⁸Includes owners proper, part owners and managers.

¹⁹Includes land operated under deed by part owners and by owners proper.

²⁰Includes land operated under lease by part owners and by tenants.

1900, and 41.4 in 1910, a relative increase of 5.3 per cent. The statistics based on acreage indicate that the percentage of tenancy in 1900 was 45.2, and in 1910, 51.0. Basing the statistics on acreage raises the percentage of tenancy for 1900 by over one-fourth, that of 1910 by nearly one-fourth, and multiplies the rate of increase in tenancy between 1900 and 1910 by 2.4.

The farms of tenants increased 11.2 per cent in size and 0.6 in number between 1900 and 1910, embracing 38.63 per cent of the farm acreage in 1900 and 43.59 per cent in 1910. The farms of part owners increased in number from 34,375 in 1900 to 37,807 in 1910, or 10 per cent. The hired acreage in the average partly-owned farm in 1900 was 62.99 and in 1910, 63.86, an increase of 1.4 per cent during the decade. The part owners hired 6.6 per cent of the farm land of the state in 1900 and 7.4 per cent in 1910, a relative increase of one-eighth. The percentage of the farm acreage owned by part owners increased from 8.4 to 9.7 between 1900 and 1910, while the percentage owned by owners proper fell from 45.0 to 37.5. Although the farms of owners proper were below the average in size in 1900, having but 118.9 acres on the average, they lost 5.1 acres per farm between 1900 and 1910.²¹

The increase in tenancy during the last decade was due in large measure to the growth in the average size of the areas rented by tenants and part owners, accompanied by a falling off in the size of the areas operated by the owners.

STATISTICS OF FARM TENURE BY COUNTIES

A map showing by dots the number of farms operated by tenants in the United States in 1910²² reveals the fact that the density of tenant farms in Illinois is greater than in any other area of equal size which does not include territory north of Tennessee or east of the line bisecting the states from North Dakota to Texas. Within the boundaries of Illinois the tenant farms seem to be pretty uniformly distributed, except for the territory between the Kaskaskia and Wabash rivers. A tendency towards clusters is found around East St. Louis and Chicago, while the density of tenants seems to be somewhat greater in the area between those two cities.

Another map showing by shaded areas the percentage of farms operated by tenants in every county in the United States is published by the United States census.²³ Naturally such a

²¹See below, p. 87.

²²Census, 1910, V, second map following 98.

map shows much less uniformity than the map employing the dot system. This is due to differences in the size of farms in various sections. The states whose appearance is most different in the two maps are, perhaps, Oklahoma, Iowa, and Illinois. In each of these states differences in the percentage of tenant farms from one section to another are very striking.

To trace the sectional differences in the percentage of tenant farms in Illinois a series of maps is presented herewith.²⁴

In 1880 the percentage of Illinois farms operated by tenants was 31.38. Only one county, Logan, had a percentage greater than 50. In Edwards county the percentage was 14.5. Of the remaining 100 counties, 50 had percentages between 25.0 and 35.0. These were located largely in the Northern and Western parts of the state. The 28 counties having percentages above 35.0 were clustered in the Central part of the state and in the old "American bottom" district.²⁵ The counties having percentages below 25 were confined to the Southern part of the state.

In 1890 the percentage of tenant farms in the state was 34.00. Ford county took the lead with a percentage of 53.7. Edwards county had the lowest percentage, 16.0. There were 45 counties having more than 35.0 per cent of their farms operated by tenants, against 28 counties in 1880. The counties with the highest percentages were in the East Central part of the state. Southern counties showed little change from the small percentages they had ten years before.

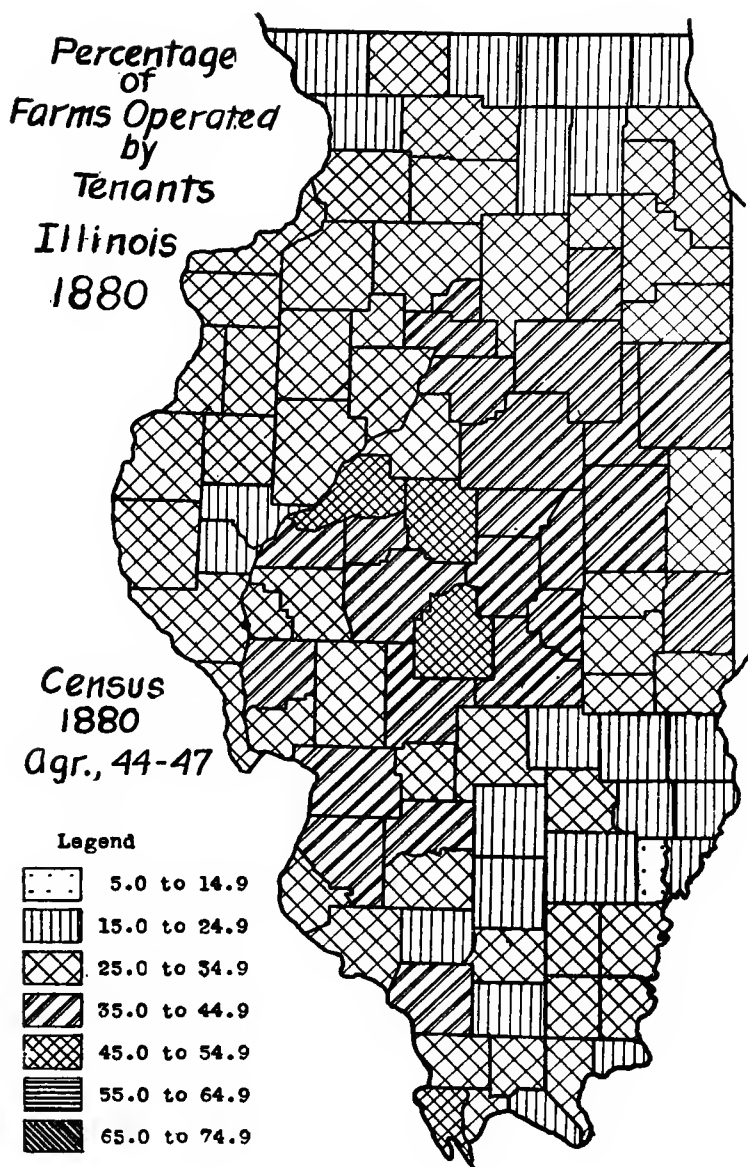
In 1900 the percentage of farms operated by tenants was 39.26. There were 68 counties having more than 35.0 per cent of their farms operated by tenants, and of these 26 had percentages exceeding 45.0. These counties were located in the East Central part of the state. The "Military tract"²⁶ underwent the most phenomenal increase in tenancy of any section of the state during this decade of remarkable growth in tenancy.

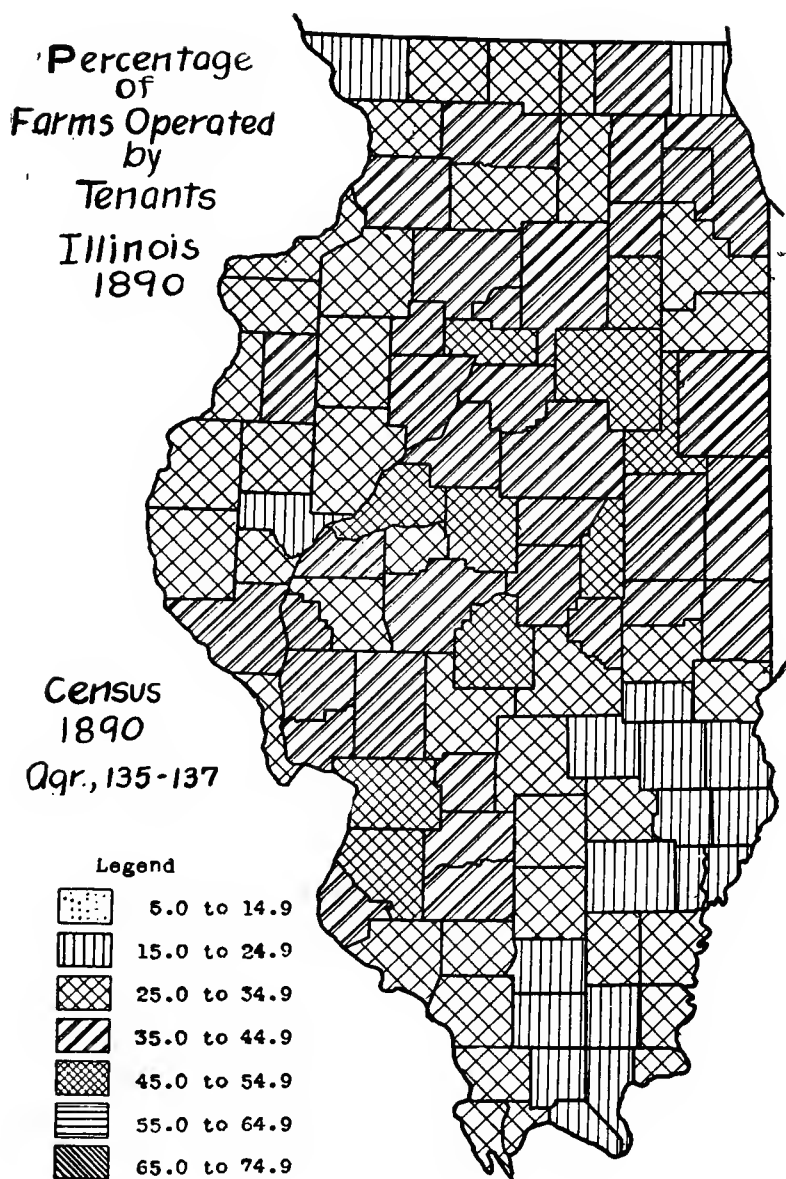
²³*Ibid.*, following 106.

²⁴See below, pp. 50-58, *passim*.

²⁵Around East St. Louis.

²⁶The strip between the Illinois and Mississippi rivers.





In 1910 the percentage of farms under tenant cultivation was 41.44. There were 41 counties with percentages exceeding 45.0. Twelve of the counties had percentages exceeding 55.0. By 1910 percentages of tenancy exceeding 45.0 had appeared in many of the counties between the Illinois and Mississippi rivers. Low percentages characterized the counties bordering the Mississippi river as far south as the old American bottoms, and followed the Illinois river over half the distance to its source. In Southern Illinois, however, the percentages in the counties bordering the Mississippi, Ohio and Wabash rivers was somewhat larger than the percentages prevailing in the interior counties. The lowest percentage was that of Edwards county, 20.1, while the highest was that of Ford, 66.7. Ford, Logan, and Grundy counties were the only counties in the United States north of the latitude of Cairo, Illinois, whose percentage of tenant farms was above 60.0.

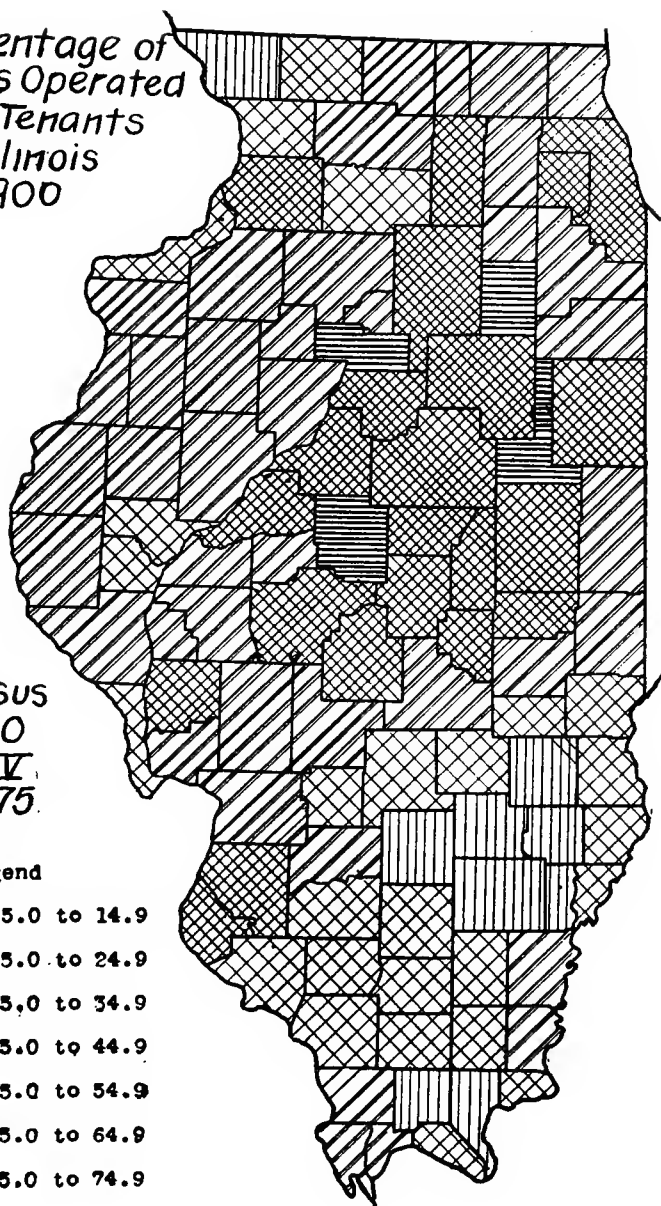
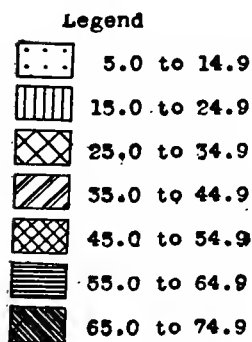
To ascertain the relative growth of tenant farming in Illinois from 1880 to 1910 we may employ as a basis the number of tenants among each one thousand operators. In five counties, led by DeKalb with a percentage of 122.7, the increase in the relative number of tenant farms was over 100 per cent. There were five counties²⁷ in which there was a decline in the relative number of tenant farms during the period considered. The percentage of decline was largest in the case of Pope county. In Pope county, however, the percentage of decline was only 22.5. Through the Central part of the state the increase was between 25 and 50 per cent. In general, it may be said that the relative number of tenant farms was stationary in Southern Illinois, increased by one-fourth to one-half in Central Illinois, and doubled in Northern Illinois during the generation, 1880 to 1910.

The following table shows the number of counties in each grade when classified according to the percentage of farms operated by tenants.

²⁷All of these counties are located in Southern Illinois.

*Percentage of
Farms Operated
by Tenants
Illinois
1900*

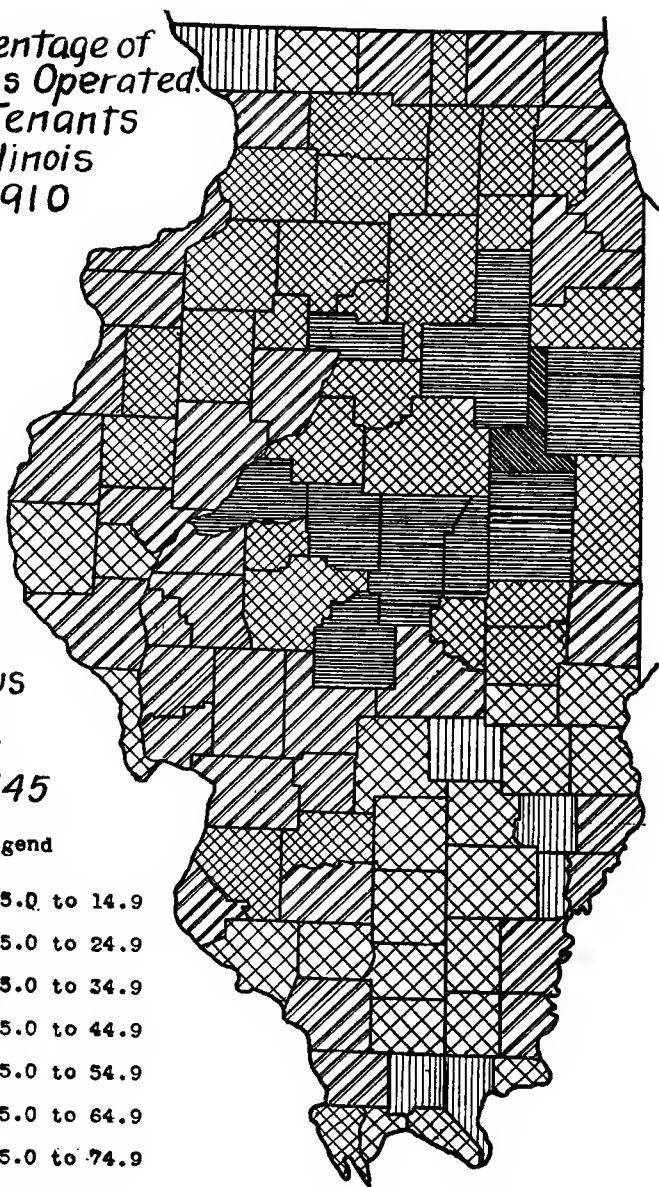
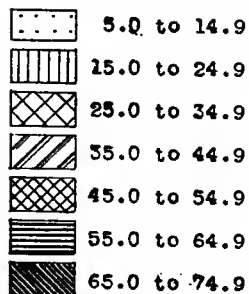
*Census
1900
Vol V
73, 75*



*Percentage of
Farms Operated
by Tenants
Illinois
1910*

*Census
1910
Vol VI
436-445*

Legend



CLASSIFICATION OF COUNTIES ACCORDING TO THE PERCENTAGE OF FARMS OPERATED BY TENANTS, AND NET CHANGE IN THE NUMBER OF COUNTIES IN EACH PERCENTAGE GROUP, ILLINOIS, 1880-1910.

Percentage range	Date				Net change, 1910 compared with 1880	
	1910	1900	1890	1880	Direction	Number
65.0-69.9	1	----	----	----	Inc.	1
60.0-64.9	2	1	----	----	Inc.	2
55.0-59.9	9	3	----	----	Inc.	9
50.0-54.9	7	9	2	1	Inc.	6
45.0-49.9	22	13	8	3	Inc.	19
40.0-44.9	17	25	13	5	Inc.	12
35.0-39.9	16	17	22	19	Dec.	3
30.0-34.9	11	13	20	22	Dec.	11
25.0-29.9	11	12	20	28	Dec.	17
20.0-24.9	6	9	11	19	Dec.	13
15.0-19.9	----	----	6	4	Dec.	4
10.0-14.9	----	----	----	1	Dec.	1

The table shows the positiveness with which the percentage of tenant farms has increased in Illinois counties. The counties having percentages below 40.0 have been growing fewer and fewer in number, while the number of counties in each grade above 40.0 has undergone a regular increase.

The percentages characterizing the Illinois county with least tenancy at the four census dates, 1880 to 1910, were 14.5, 16.0, 21.2 and 20.1 respectively.²⁸ The highest percentages similarly reported were 50.4, 53.7, 62.9 and 66.9, respectively.²⁹ The lowest percentage was 5.6 points higher in 1910 than in 1880, and the highest percentage had risen 16.5 points.

All indications go to show, therefore, that while the rate of progress in the direction of farm tenancy has been slow in the case of some counties of Illinois, it has been very rapid in the case of some other counties. The movement away from uniformity in Illinois has been much greater than is indicated by the census map showing the distribution of tenants by number.

²⁸Edwards county, in each case.

²⁹Logan county in 1880, and Ford county in 1890, 1900 and 1910.

STATISTICS OF LAND TENURE BY COUNTIES⁸⁰

The absence of county data on the acreage hired and owned by part owners in 1900 makes it impossible to present maps showing the percentage of farm land operated under the various forms of tenure at that date. By courtesy of the census bureau, however, the thirteenth census data on renting and owning by part owners in Illinois have been received by private communication for 99 of the 102 counties in the state. This makes it possible to present here the data on land tenure for 1910.

Comparing the map showing the percentage of farm land operated by tenants in 1910 with the map showing the percentage of farms operated by tenants, it appears that in Southern Illinois the tenants operated farms averaging smaller than those operated under other forms of tenure. In Central Illinois east of the Illinois river, and especially in the interior counties of Northern Illinois the tenant farms were larger than those of other tenures. In the Military tract tenant farms were about the same in size as other farms. As a whole, the state had 43.59 percent of its farm land operated by tenants whereas these constituted 41.44 per cent of the farm operators.

The farms operated by managers were 0.96 per cent of all farms in 1910, but averaged 234.04 acres. The percentage of land managed was 1.72. In Piatt county, managers cultivated 7.64 per cent of the land, while in Wabash county they controlled but 0.18 per cent. Little can be said of the sectional variation except that the distribution of managed land is highly sporadic. However prevalent managing may be west of the Mississippi,⁸¹ its prominence in Illinois in 1910 cannot be regarded as important.

The percentage of farm land operated by part owners in 1910 was 17.15. The farms of part owners contained an average of 147.5 acres against the general average of 129.1 acres.⁸² In two counties part owners cultivated over 35 per cent of the farm land, Edwards county leading with a percentage of 39.1. In DuPage county, in the Northern part of the state, only 3.0 per cent of the farm land was operated by part owners. In a

⁸⁰"Land" tenure may be conveniently used when we think in terms of acreage, and "farm" tenure when we think in terms of farms or of farmers.

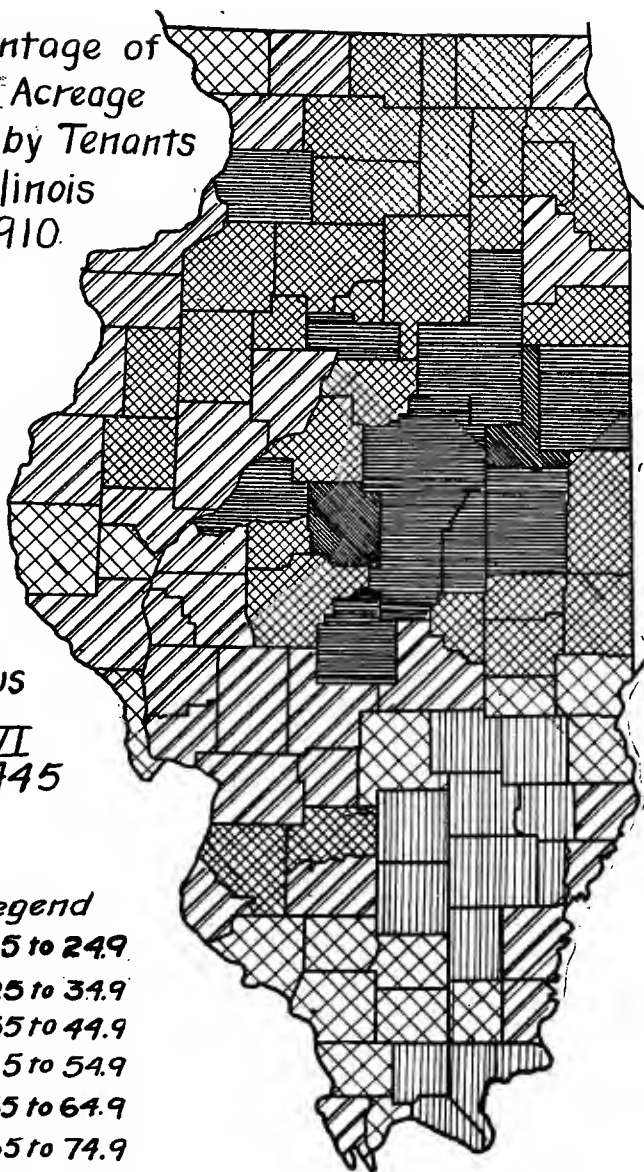
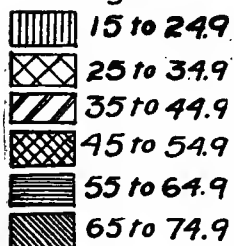
⁸¹See above, pp. 14, 16, 17.

⁸²See below, p. 87.

Percentage of
Farm Acreage
Hired by Tenants
Illinois
1910

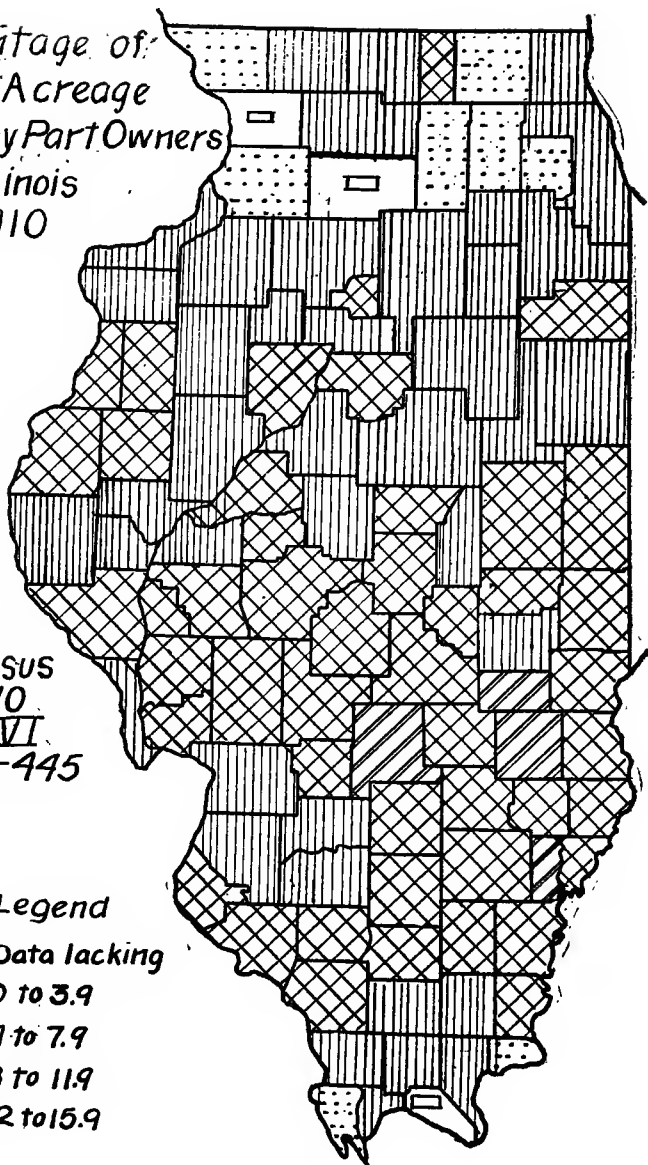
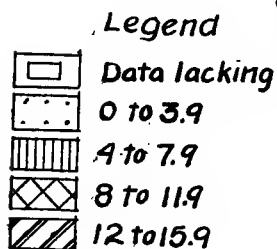
Census
1910
Vol. VI
426-445

Legend



*Percentage of
Farm Acreage
Hired by Part Owners
Illinois
1910*

*Census
1910
Vol. VI
426-445*



general way it may be said that the control of part owners over Illinois farming is greatest in Southern Illinois, average in Central Illinois, and least in Northern Illinois.

The percentage of the "partly owned" land that was hired in 1910 varied from 30.2 in the case of Hardin county to 55.2 in Vermilion county. The counties in which over 50.0 per cent of the land in farms of part owners was hired were in the East Central part of the state. Those in which less than 40.0 per cent of the land in partly owned farms was rented were in the Southern part of the state. The average for the state was 44.7 per cent.

A map is presented showing the percentage of the total farm land in each of 99 counties that was leased by part owners in 1910. The smallest percentage was 1.6, found in DuPage and Kane counties, and the largest percentage was that of Edwards county, 14.8. The counties in which over 9.0 per cent of the farm land was hired by part owners were confined almost entirely to the Southeastern quarter of the state. Very low percentages occurred in the extreme Southern and Northern ends of the state. The average for the state was 7.43 per cent.

Another map shows the percentage of all land in the 99 counties hired by tenants and by part owners in 1910. The county with the smallest percentage of its farm land operated under lease was Hardin, the percentage being 21.6. In Jo Daviess³³ and in Pope and Johnson counties³⁴ the percentages were less than 30.0³⁵ In Ford county 75.4 and in Logan county 72.4 per cent of the farm land was hired. Nineteen counties had over 60.0 per cent of their farm land hired. These counties, with the exception of Whiteside, lay in the Central and East Central part of the state.

The land to which part owners held deeds constituted 9.73 per cent of the total farm acreage of the state. In DuPage county the percentage of the farm land owned by part owners was but 1.4, while in Jasper county it was 21.8. The percentages throughout Southern Illinois, except St. Clair county and the extreme Southern tip, were above the state average. In a rough way it may be said that the amount of land owned by part owners decreases the farther north one goes in the state.

Owners proper operated 37.54 per cent of the land in Illinois

³³In the Northwest corner of the state.

³⁴In the Southern tip of the state.

³⁵Massac county would probably come in the same class had we the data for it.

*Percentage of
Increase in Average
Value of Land and
Buildings Per Acre
Illinois
1900-1910*

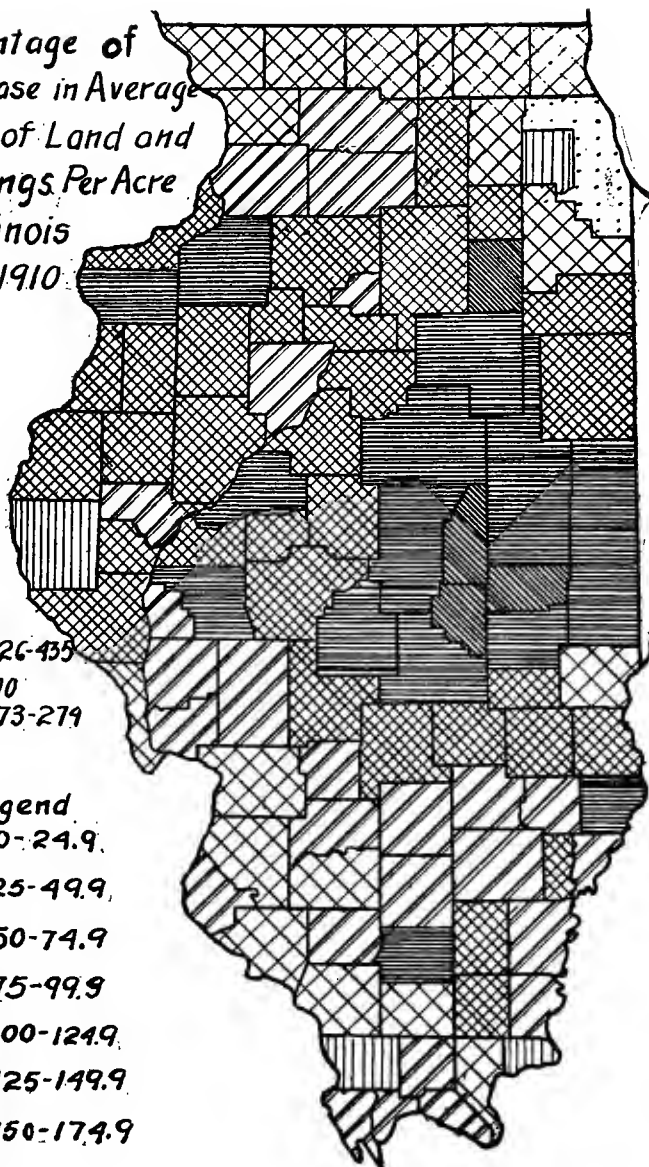
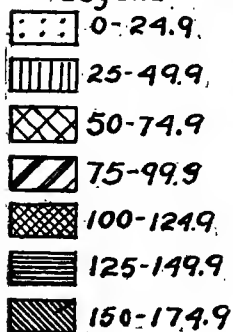
*Census
1910*

Vol VI 426-435

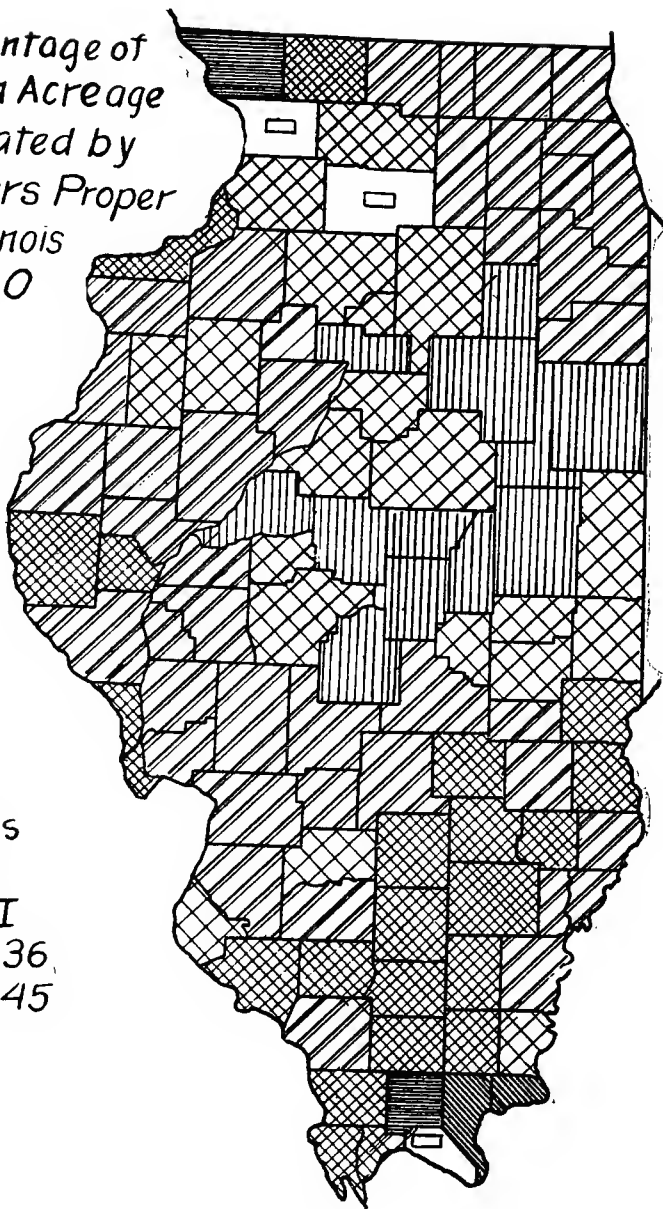
1900

Vol V 273-279

Legend



*Percentage of
Farm Acreage
Operated by
Owners Proper
Illinois
1910*



*Census
1910
Vol VI
425-436
436-445*

in 1910. The percentage in Ford county was the least, 18.4, while the percentage in Hardin county was the largest, 73.2. In 13 counties the owners proper operated less than 25.0 per cent of the farm land, these being East Central Illinois counties.

In 13 counties, located mainly in East Central Illinois, the proportion of land operated by the owners was less than 33.3 per cent. In 5 of these counties the percentage was under 30.0 and in one county, Ford, the percentage was 23.7. Only three or four counties had percentages exceeding 70.0. These were Hardin, 77.8; Pope, 75.9; Johnson, 74.0; and possibly Massac. The average for the state was 47.28 per cent.

It is evident that the leasing of land has a very prominent place in Illinois agriculture, and that there are marked sectional variations.

THE SECTIONAL ASPECTS OF LAND TENURE IN ILLINOIS

The sectional differences in land leasing in Illinois can be best understood by tracing the sectional variations in other features of agriculture in the state.³⁶

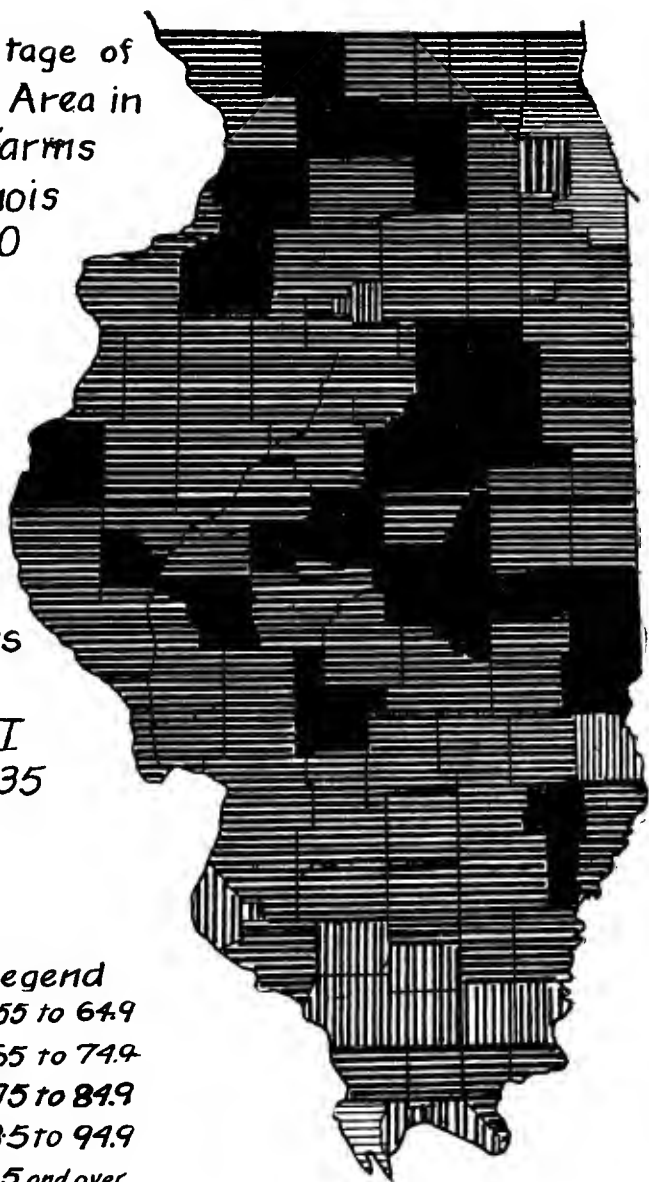
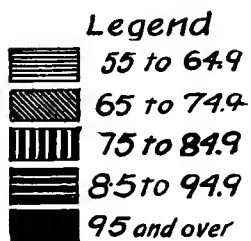
In 1880 it appears that the counties with the highest percentage of land area in farms, of farm land improved, of improved land in cereals, of improved land in corn, and the counties with the highest average number of acres per farm, and the highest average value of products per acre were located in the Central and Northern parts of the state. The figures reported for the Southern Illinois counties were smaller than those of the other counties in the case of each subject, or basis of comparison mentioned. In like manner the land was lowest in price in Southern Illinois, but the counties having the highest priced lands in 1880 were located in the Northwestern part of the state.

³⁶The typewritten copy of this thesis on file in the library of the University of Illinois contains county outline maps showing data by counties on each of the following items:

(1) The percentage of land area in farms, 1880 and 1910. (2) The percentage of farm land improved, 1880 and 1910. (3) The percentage of improved farm acreage devoted to the production of all cereals, and of corn, 1880, 1890, 1900, and 1910. (4) The average number of acres per farm, 1880, 1890, 1900, and 1910. (5) The average value of products per acre, 1879, 1889, and 1899. (6) The average value of land and buildings per acre, 1880, 1890, 1900, and 1910. (7) The percentage of increase in the average value of land and buildings per acre, 1880-1910, 1880-1900, and 1900-1910.

*Percentage of
Land Area in
Farms
Illinois
1910*

*Census
1910
Vol. VI
426-435*



The data for 1890 and 1900 show the same sectional differences, with a tendency for the sectional differences to widen except in the case of the percentages of land area in farms and of farm area improved.

In 1910 the percentages of land area in farms and of farm land improved were much more nearly uniform throughout the state than at previous census dates. This is because of the fact that there has been an increasing demand for land in all parts of the state. That fact is attested by the higher value of land in 1910 as compared with previous dates. There was a concentration on the production of cereals in the Central counties. This was doubtless in response to the higher prices paid for cereal products. The result of the changes in prices and of the redistribution of productions was to increase the differences between sections in the value of products per acre.³⁷ The sectional differences in the value of land and buildings per acre were greater than those in any of the other features, due in large part to the fact that the relative increase in the value of land and buildings per acre was greatest in the districts where highest prices had prevailed in 1900 and 1890. A similar development took place in the matter of average farm acreages. In the Southern part of the state farms changed little in size from 1880 to 1910, while in the counties of the Central part of the state a

³⁷The unreliability of these statistics and the fact that they represent the gross values of products make it necessary to be cautious in their use.

Data were gathered in 1880 and 1890 for products raised, the part fed to livestock on the farm being given an estimated value and included. In 1900 the data excluded the products fed to livestock. This makes comparisons with previous census data of doubtful value. Even for the same census comparisons between counties in which livestock and dairying were practised and other counties must lose most of their significance. The census of 1910 gives up any attempt "to compute or even to estimate approximately the total value of farm products" and proceeds to enumerate the "numerous difficulties which stand in the way of obtaining a total which would be at once comprehensive, free from duplication and confined exclusively to the products of a definite period of time." Values of the different productions were reported separately in 1910, however, and an inspection of these returns bears out the statement in the text to which this footnote appends.

The values are the so-called "farm values", rather than the values of the products delivered at the market. The data at each census are for the preceding year, so far as productions are concerned, but the acres of land in farms and the prices are those of the current census year.

considerable increase took place in the size of the average farm.

The development during the last generation can be better understood, perhaps, by referring to the distribution of timber in 1880. On some maps designed to show the density of timber in various parts of the state is what may be called the "ten cords" line. This line divides the territory in which there were more than ten cords of wood per acre from that in which the cordage per acre was less than ten.³⁸ The latter may be regarded roughly as the original prairie district of the state.³⁹

In nearly every comparison between recent and earlier census data the later reports show developments to be concentrating in the old prairie district. The most striking case is that of land values. The highest values in 1880 were in the territory north and west of the Illinois river. By 1910 the district of highest land prices had become centered in the East Central part of the state and the counties in which the value of land and buildings per acres exceeded 125 dollars were, almost without exception, those whose areas constituted the original prairie.

When the maps illustrating tenancy are compared with those showing the sectional aspects in the other features of agriculture, the resemblance is striking. The counties with highest percentages of tenancy at each date were, for the most part, the prairie counties. In 1910, especially, the district in which over 45 per cent of the farms were operated by tenants, which is nearly the same as that in which over 50 per cent of the land was leased, was defined almost exactly by the line dividing the original prairie and timber regions.

The sectional association of tenancy with the values of products, with values of land and buildings, and with various acreages of farms is exhibited in the table on the next page. The counties were divided into six groups of seventeen counties each, independently for each census. Group I included the seventeen counties that stood highest in the percentages of tenant farms at the census date in question, group II included those ranking from eighteenth to thirty-fourth, and so on for the other four groups.

In all cases the range of difference between the highest and lowest county group averages was greater at each succeeding census date. This increase in sectional differences seems to have affected not only the items given here, but also items of produc-

³⁸Census, 1880, Forest Trees of North America, plate 7.

³⁹Pooley, E. V., *The Settlement of Illinois from 1830 to 1850*, 308.

THE VALUE OF PRODUCTS PER ACRE, THE VALUE OF LAND AND BUILDINGS PER ACRE, AND THE AVERAGE NUMBER OF ACRES PER FARM FOR ILLINOIS COUNTIES ARRANGED INTO GROUPS ACCORDING TO THE PERCENTAGE OF FARMS OPERATED BY TENANTS IN THE INDIVIDUAL COUNTIES; AND THE RANK OF THE COUNTY GROUPS FOR EACH ITEM.⁴⁰

County group	Data and rank of groups based thereon					
	I	II	III	IV	V	VI
Average value per acre (dollars). 1910 ⁴²	 (1)	 (2)	 (3)	 (4)	 (5)	 (6)
Products ⁴¹ 1900	10.20 (1)	9.74 (2)	7.92 (3)	7.84 (4)	5.99 (5)	4.68 (6)
..... 1890	7.23 (1)	6.79 (2)	6.59 (3)	5.82 (4)	4.63 (5)	3.97 (6)
..... 1880	7.06 (1)	7.02 (2)	6.89 (3)	6.08 (4)	4.96 (6)	5.94 (5)
Land and buildings..... 1910	143.20 (1)	118.10 (2)	103.30 (3)	80.80 (4)	51.40 (5)	39.10 (6)
..... 1900	63.30 (1)	61.40 (2)	44.10 (4)	44.70 (3)	38.80 (5)	19.30 (6)
..... 1890	47.80 (2)	52.10 (1)	43.24 (3)	40.90 (4)	28.43 (5)	23.17 (6)
..... 1880	31.10 (3)	34.94 (2)	38.23 (1)	28.45 (5)	25.68 (6)	29.75 (4)
Average number of acres per farm..... 1910	160.5 (1)	146.3 (2)	125.0 (4)	131.2 (3)	110.7 (5)	100.5 (6)
..... 1900	148.6 (1)	129.5 (3)	134.7 (2)	123.9 (4)	112.0 (5)	96.4 (6)
..... 1890	136.5 (2)	138.5 (1)	135.6 (3)	128.0 (4)	115.0 (5)	104.0 (6)
..... 1880	122.1 (5)	132.2 (1)	124.0 (2)	117.5 (6)	123.8 (3)	122.3 (4)

⁴⁰Based on Census, 1910, VI, 436-455; 1900, V, 73, 75, 273, 274; 1890, Agriculture, 135, 137, 204-206; and 1880, 44-47, 111, 112.

⁴¹The products are those of the year preceding the census.

⁴²Comparable data discontinued, other data afford basis for estimates of ranking.

tion,—nearly everything, in fact, except the percentage of land area in farms, the percentage of farm area improved, and the percentage of farm area in woodland. The application of capital and labor seems to have produced greater sectional differentiation.

The tendency toward sectional concentration in the agriculture of Illinois doubtless results from the fact that farming has been carried on for increasingly larger market areas, and that the capacities of soil and situation for the production of certain staples have been revealed more and more clearly with the advance of time.

In the case of each of the three bases of comparison given in the table the sectional association with tenancy was closer at each succeeding census. In 1910 the parallelism was very close between tenancy and average values per acre of products and of land and buildings. The county groups III and IV (on the basis of tenancy) ranked fourth and third, respectively, in the average size of farms, but otherwise the sectional correspondence between tenancy and the size of farms was consistent. The same sectional correspondence obtained between tenancy and the percentage of land area in farms, and between tenancy and the percentage of improved land devoted to cereal and especially corn and oats production.

The fundamental reason for the increasing association of all the factors has been the influence of an increasing market demand for cereals, the production of which in Illinois was being carried on under a perfecting machine economy. This influence has been most felt in districts in which machinery could be most effectively employed and in which the natural fund of fertility enabled fertilizing costs to be almost entirely eliminated. The rich, level prairie has, therefore, responded with greater percentages of land area under cultivation, of farm area improved, of improved area in cereals, and with greater acreage per farm.

Tenancy has been a phase accompanying this movement, and has been related to the other factors.

Farm tenancy has been more or less prevalent in Illinois districts according as they have been producing a high or low value of products per acre. It would scarcely be urged that the association of tenancy with high acre values of products proves that tenancy was responsible for the higher productiveness of the land. "Productiveness" is a matter of gross values,

however, and not simply one of yields per acre. For that reason tenancy may have increased the gross values of products per acre by causing a larger portion of the land area to be devoted to the production of products the gross values per acre of which are high. On the other hand, the productiveness of the soil has done much to determine the proportion of the land operated under lease. The gross value of products per acre in different sections must be a fair index of the relative rents paid for equal areas in those sections. The higher the rents received by the landowners, the greater is the chance that the owners may feel free from the necessity of operating their land.

At this point, however, the size of farms and holdings⁴³ must be considered.

Differences in per-acre rentals do not afford alone a basis for explaining differences in the prevalence of tenant farming. The ability of many landowners to live without operating their farm land is contingent upon the amount of rent they receive. The number of acres from which they receive rent is often a more important consideration, therefore, than the rent per acre. The larger the average size of holdings the greater we may suppose the opportunity to be for landowners to rent their land out and live upon its rental income.

On the other hand, the prevalence of holdings too small to be operated except in connection with adjacent land may contribute to land renting.⁴⁴

It is probable that tenancy has, in turn, had an influence upon the size of farms. When an owner leases his land to tenants, he naturally tries to get the lay-out of land best adapted to tenant operation. Unless the economies of cultivation favor small farms, the owner will seek tenants who will operate in larger tracts. For the owner this cuts down the difficulty and expense of negotiation and supervision. Where the advantages of large-scale farming are effective, the better class of tenants are naturally attracted to opportunities for operating on a large scale.

In districts where the advantages of large-scale farming have been less pronounced there has been a smaller possibility for owners to amass large holdings. As a consequence fewer

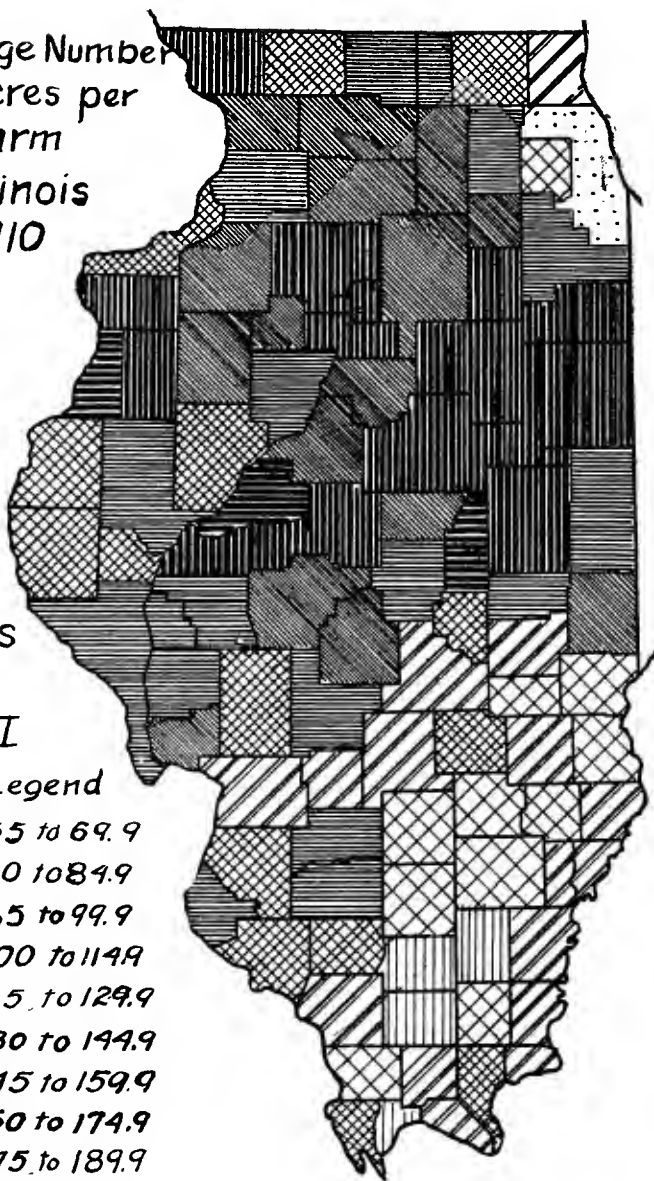
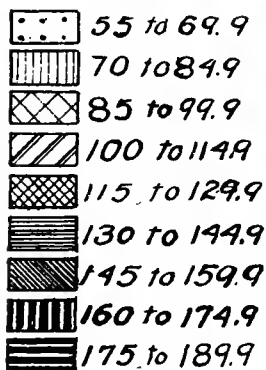
⁴³Holdings may be understood to refer to all the farm property owned by a landlord; sometimes including several farms.

⁴⁴See above, p. 22.

Average Number
of Acres per
Farm
Illinois
1910

Census
1910
Vol. VI

Legend



of the farms in the districts where small holdings prevail are operated under lease.

Thus far in this division renting has been considered largely from the point of view of owners with land to rent. On the other hand, there are those who want to operate land, in most cases, no doubt, looking forward with hope for land ownership. To these persons the prices they must pay for land are of special importance.

It will be observed in the table above that sectional correspondence between land prices and values of products, while not close in 1880, came later to be more and more so. It is probable that, on account of its not yet having been adequately tilled, the open prairie land was not yet established as superior in value in 1880, for the highest land prices were at that time in the district north and west of the Illinois river. At the later dates, however, it is safe to say that the price of land is a fairly accurate index of its productiveness.

The sectional correspondence of land prices with tenant farming was not very close in 1880. The failure in this case need not be taken too seriously, however, because the average value of land and buildings differed little from section to section. At each succeeding census the sections were more distinctly differentiated from one another in this respect. As this change took place high percentages of tenancy and high prices of land, and small percentages of tenancy and low prices of land were more usually found in the same districts. The association was very close in 1910—closer, perhaps, than that of tenancy with any of the other phenomena with which comparisons are made here.

High land prices have been characteristic of the districts where the standard size of farms was especially large. As a consequence the investment necessary for the purchase of a farm of representative size in the districts of high prices has been much larger than in the districts of smaller farms and lower prices. Since the percentage of the value which can be covered by mortgage is smaller in the case of the higher priced land,⁴⁵ the demand for ready cash is greater than the ratio of the price to cheaper land would lead one to suppose. Ready cash, however,

⁴⁵Stewart, C. L., *An Analysis of Rural Banking Conditions in Illinois*, 14, 15.

and credit on which to get money, is what the tenant ordinarily lacks.

For the most part, the influence of timber has been expressed in our data in the reduced earning power of the land. It seems probable, however, that it has had an effect upon tenancy in a more direct manner. Timber offers attractions to many people because of the kind of life to which it is conducive. Hunting, fishing, and the more varied activities which characterize life where the function of woodsman and farmer are combined probably cause the owners of such land to have less desire to retire from their places.

The result of the study of sectional differences shows that a single index, such as the value of land per acre or per farm, cannot be regarded as sufficient for an explanation of sectional differences in tenure. Of all single factors given statistical expression in the census reports gross values of products per acre seem to have had the most complete sectional parallelism with tenancy in Illinois. Probably gross values of products per farm would afford a still better index of tenancy.

There remains to be made an inquiry into the historical changes in the features thus far considered, as it were, by decennial cross-sections of the state.

HISTORICAL TENDENCIES AND TENURE IN ILLINOIS.

From 1880 to 1910 the number per 1000 farms of farms operated by tenants increased 30.1 per cent, and of farms operated by owners, part owners and managers decreased 16.0 per cent.⁴⁶

The number of acres of improved land per 1000 acres of land area increased from 728 to 782, or 7.3 per cent, between 1880 and 1910. That the improved farm acreage should have changed less than the number of the operators is only to be expected. In so far as slowness of expansion in the improved farm acreage in Illinois is indicative of a similar condition throughout the country,⁴⁷ it may imply a greater cost of increasing the improved acreage beyond the dimensions attained in 1880. To the extent that such is the case, the relative scarcity of land compared with the general population may, through the rise in prices of products and of land, and through increasing competition for rented farms, have stimulated the practice of tenancy at the expense of operation by owners.

⁴⁶See above, p. 47.

⁴⁷See above, p. 29.

Improving land has probably affected its tenure. In 1880 there were 4,935,575 acres of woodland and forest in Illinois farms. By 1910 this was reduced to 3,147,879 acres.⁴⁸ Evidence is thus afforded of a tendency to clear the timber from the land.⁴⁹ Large quantities of land have been reclaimed by means of drainage projects, especially along the river courses. By increasing the value of the land the way was paved for renting it more successfully in the future. It is probable, however, that the individual farmers who cleared and drained their farms were not themselves inclined to rent them out to tenants.⁵⁰ The fact that their farms responded to their efforts to improve them, though simple in its psychology, is a significant one. The succeeding generation of owners, however, may not be so much attached to the land as their predecessors who improved it, and may find the growing of staple crops by their tenants as satisfactory to them as if the land had always been treeless or naturally drained.

A basis for comparing the changes in tenancy with the changes in some other agricultural phenomena is afforded in the next table.

⁴⁸Census, 1910, VI, 425, and 1880, Agriculture, 103.

⁴⁹The present wooded areas represent with fair accuracy the original forest of the state. About thirty per cent of the total area of Illinois in 1857 was given as woodland. By 1880 it appears that all of the woodland in farms added to all the land area not in farms could not have exceeded twenty-five per cent, while it is possible that the percentage of the total land area in timber did not then exceed fifteen. The forest area of the state in 1911 was estimated at between five and six per cent of the land area.

It seems that nearly half of the timberland existing in Illinois in 1857 was cleared during the twenty-three years preceding 1880, while two-thirds of the remainder was cleared during the thirty-one years following.

It is not probable that any great portion of the timber has been ruthlessly burned in order to use the space for agriculture. The market for hardwood timber, of the varieties found in both Northern and Southern Illinois, has been an open one, and many of the varieties native to Illinois were such as sold well. The more prevalent practice in deforestation seems to have been to cull the more salable timber, and to treat the cut-over timber as the owner's policy might dictate.

(See Hall and Ingalls, *Forest Conditions in Illinois*, 177, 180-242, *passim*).

⁵⁰Drainage has sometimes been carried on by "outside" capitalists, in whose case the element of personal attachment to the land would not ordinarily be strong. See histories of most river counties.

THE ABSOLUTE NUMBER OF, THE PERCENTAGE OF INCREASE OR DECREASE OVER THE PRECEDING CENSUS, AND THE PERCENTAGE OF THE INCREASE BETWEEN 1880 AND 1910 OCCURRING DURING EACH DECADE IN TENANTS PER THOUSAND OPERATORS, ACRES PER FARM, AND DOLLARS WORTH OF PRODUCTS AND OF LAND AND BUILDINGS PER ACRE, ILLINOIS, 1880-1910.⁵¹

	1910	1900	1890	1880
Number of				
Tenants per 1000 operators.....	414	393	340	314
Acres per farm.....	129.1	124.2	126.7	123.8
Average value per acre (in dollars)....				
Products of preceding year ⁵²	17.92	9.40	7.02	6.43
Land and buildings.....	108.32	53.84	41.41	31.87
Percentage of increase during the decade ending				
Tenants per 1000 operators.....	5.3	15.6	8.3	-----
Acres per farm.....	3.9	-2.0 ⁵³	2.3	-----
Average value per acre				
Products of preceding year.....	89.9	33.9	9.2	-----
Land and buildings.....	101.2	30.0	30.0	-----
Percentage of increase, 1880-1910, occurring during the decade end'g				
Tenants per 1000 operators.....	21.0	53.0	26.0	-----
Average value per acre				
Products of preceding year.....	72.9	21.7	5.4	-----
Land and buildings.....	71.3	16.3	12.5	-----

The table shows a trend toward larger figures in all the phenomena, much greater in the case of the values of products and of land and buildings than in the case of tenancy or the size of farms. The relative number of tenant farms increased most between 1890 and 1900, the decade during which the farms grew smaller on the average. This affords no contradiction, however, to the conclusion previously arrived at, that smaller farms are usually operated by the owners. A reduction in the size of farms may, moreover, be related to an increase in tenancy, because of a movement on the part of larger owners to cut down

⁵¹Census, 1910, VI, 426, 436, 446; 1900, V, 72, 148, 149, 273; 1890, Agriculture, 119, 204; and 1880, Agriculture, 28, 29, III.

⁵²With 1880 as 100.0 index numbers for the succeeding census dates were calculated on the basis of the two American systems, with the following result: 1890, 86.3; 1900, 85.3; 1910, 100.9. The values before being placed on the tabular basis were 1890, \$6.06; 1900, \$8.02; and 1910, \$17.98. See above, p. 40, note 26.

⁵³Minus sign (—) indicates decrease.

the size of the farming units for the sake of greater efficiency in production.

The rise in the value of products per acre is, of course, by no means an accurate measure of the average profits per acre, and, therefore, we should expect to find the value of land and buildings subject to a different variation than that in the value of products. The difference, however, is not great, the value of products per acre increasing 171 per cent, and the value of land and buildings 241 per cent between 1880 and 1910. It is only fair to estimate that the money profits of farming an acre increased somewhere near 200 per cent.

The increase of tenancy was much slower than the rise in the value of products, the value of land and buildings, or, possibly, of the profits per acre. The decade of the most phenomenal increase in the value of products, land and buildings, and, presumably, profits, was the one of least relative increase in tenancy, and followed the decade of greatest relative increase in tenancy. It might seem, therefore, that the increase of tenancy may have influenced the other factors, as well as that the other factors influenced tenancy.

If we consider divisions within the state, the disagreement between the rate of advance in land prices and the rate of increase in tenancy is still more obvious. The increase in the price of an average acre in the East Central counties during the thirty-year period, 1880 to 1910, was from four to six fold. This was about twice as great as the increase that took place in the price of a similar area in Northern and Western Illinois and about three or four times as great as the corresponding increase in Southern Illinois.⁵⁴ The percentage of tenancy doubled in Northern Illinois, increased by half in Central Illinois, and remained practically stationary in Southern Illinois.

It appears, then, that in Illinois the price of land has been highest and has increased most where and when the percentage of tenancy was the highest, but that the percentage of tenancy has not increased most either when or where land prices were the highest, or when land prices were increasing most rapidly. In other words, land prices have been more consistent with and responsive to differences and changes in tenancy than tenancy has been to differences and changes in land prices.

To some extent rising land prices are an indication of enlarged incomes of farmers and their relation to land tenure

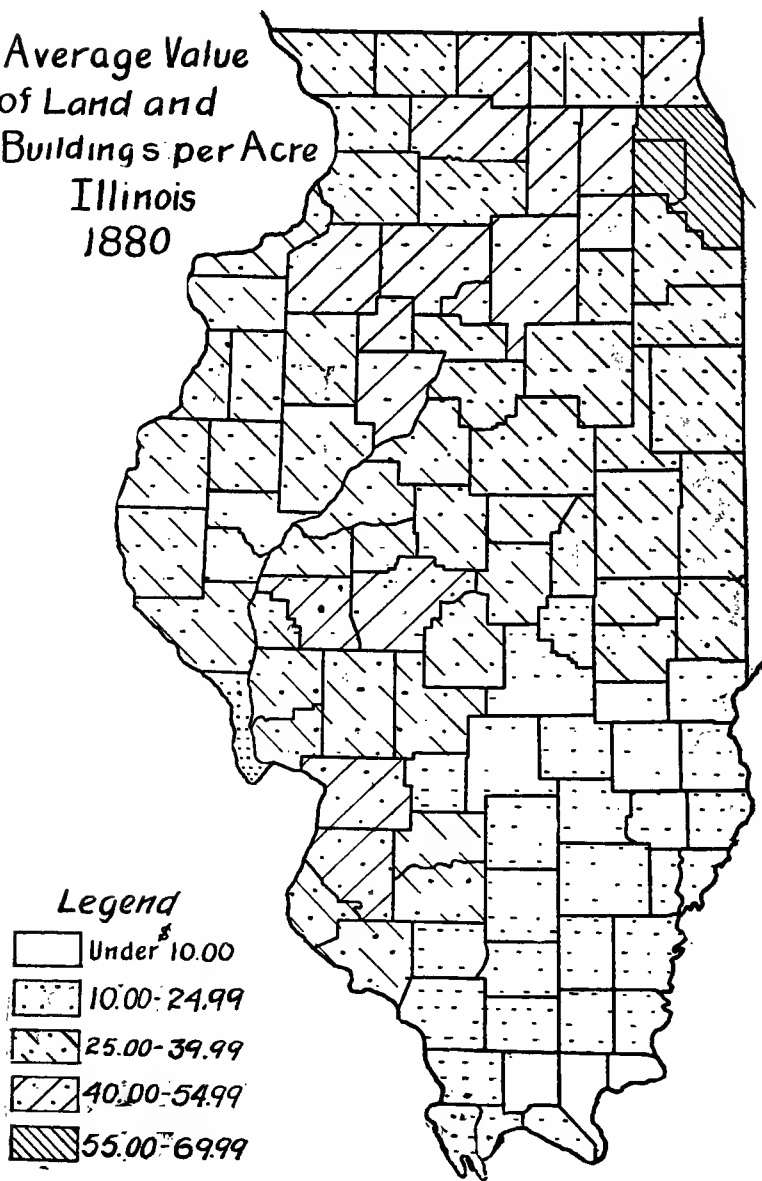
⁵⁴See below, p. 73, note 57.

is a complicated one for that reason. With rising profits from farming many operating owners who might otherwise have left and possibly sold their farms, are attracted by these greater profits to stay.⁵⁵ Thus the immediate effect of conditions causing higher land prices may be to prevent increase in tenancy. Likewise, the immediate effect of falling profits in farming may be to discourage owners from operating and possibly owning land. If these owners quit operating without selling their land, tenancy is increased. If the land is sold to tenants who proceed to operate, tenancy is decreased. So it is difficult to say whether the immediate effects of falling profits and low prices is to change the tenure of the land, although the ultimate effects are surely to decrease tenancy. The immediate accompaniment of rising land prices is likely to be an increase in tenancy, although the situation tends ultimately to become favorable to tenancy. The decade marked by the greatest increase in tenancy was that between 1900 and 1910. Agricultural profits were disappointing during the early part of the decade, but were picking up later. It is possible that many owners whose desire to quit farming was strengthened by the depression, found the effectiveness of their desire increased by the general improvement of agricultural conditions. Since 1900 the continued increase in the profits of farming has strengthened the attractiveness of the farm as a place for owners to make money by operating, but the economic freedom to leave the farm has also grown.

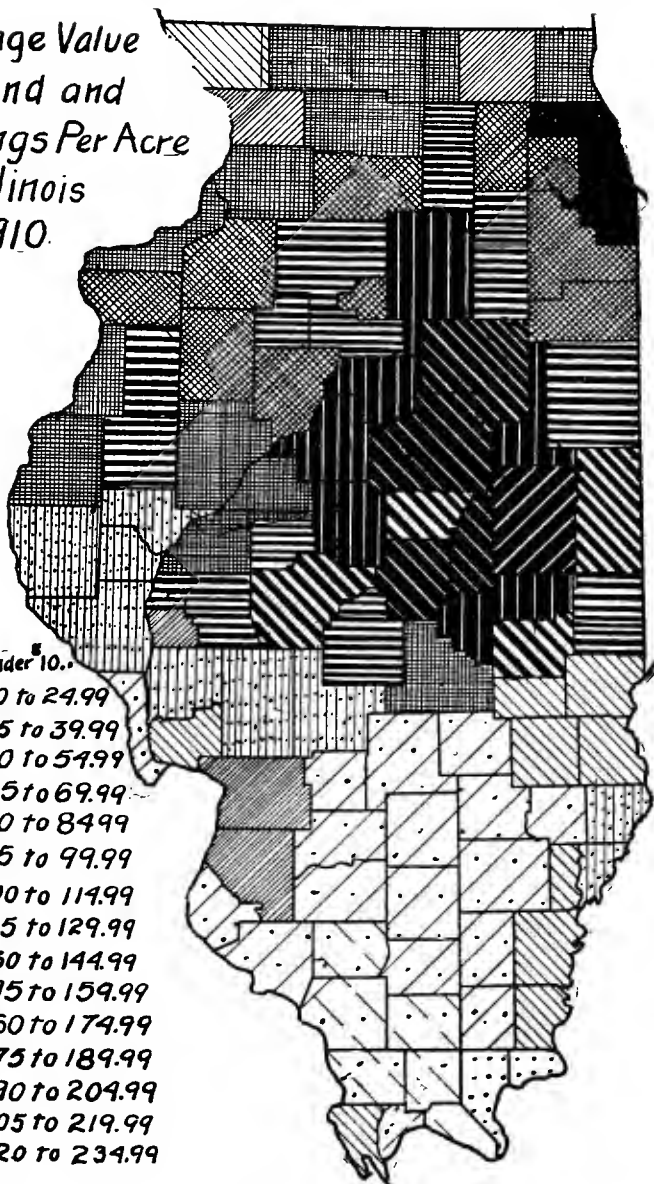
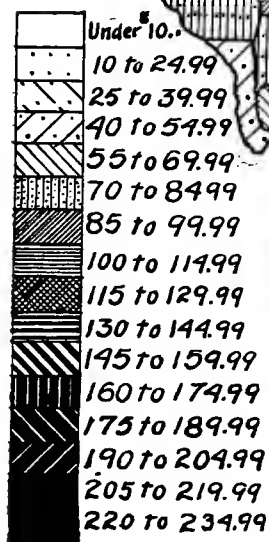
The influence of tenancy upon land prices arises in several ways. In the first place, the greater the number of available tenants for the renting of a piece of land, the greater is the value of an investment in such land to those who want to hold it without operating it. An investor can afford to bid higher for such land. In the second place, competition among tenants causes the rents paid to approach more nearly to the maximum. This naturally increases the value of the farm to the owner. In the third place, the higher the percentage of tenancy in the case of land devoted to the production of staple crops, and the more limited the aggregate acreage on which such crops can be profitably produced, the greater must be the "restraint of production" through the inefficiency of tenants, and the greater must be the effect of this restraint of production upon prices of products, profits of farming, and land values. Within its

⁵⁵See Taylor, H. C., *Introduction to the Study of Agricultural Economics*, 244-246.

Average Value
of Land and
Buildings per Acre
Illinois
1880



*Average Value
of Land and
Buildings Per Acre
Illinois
1910*



limits, inefficient production of crops, the area of production of which is naturally or economically restricted, must exert an influence similar to a crop shortage, which often results in a greater relative rise in prices per unit than the relative decline in aggregate production.⁵⁶ In so far as inefficient farming is promoted by tenants the effect may be somewhat to stimulate land prices through this "shortage" influence on production. As the areas of land suited to the production of staples become more definitely fixed, and as a greater demand is made by population for the products of those areas, the influence of inefficient production must become greater in this respect.

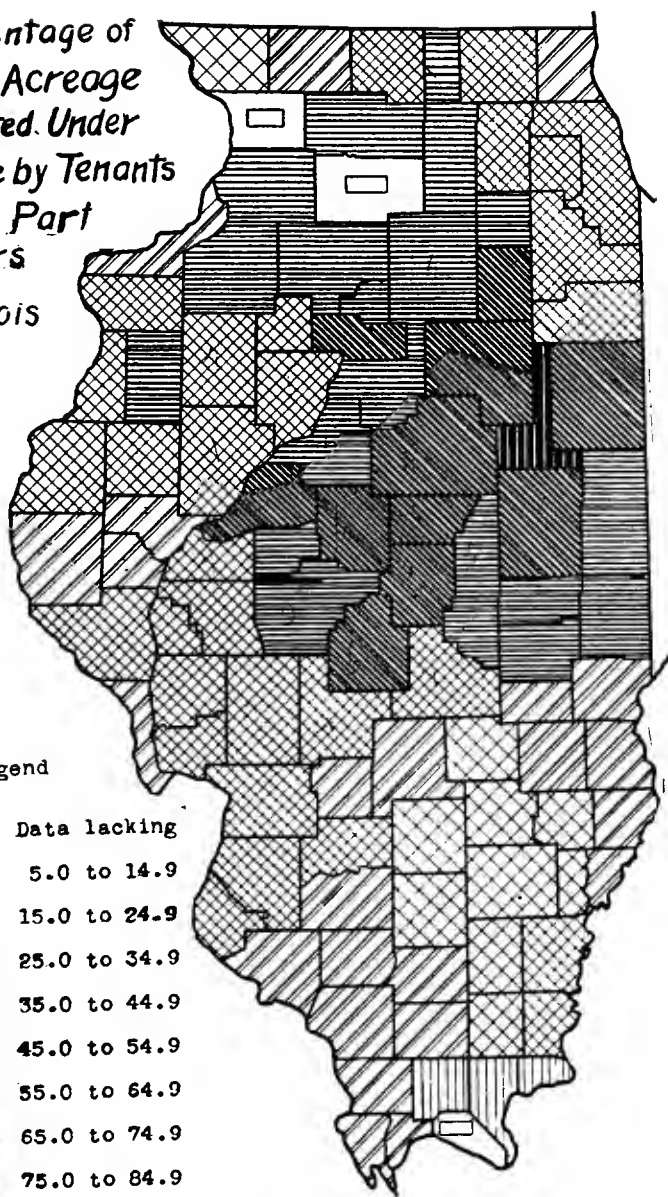
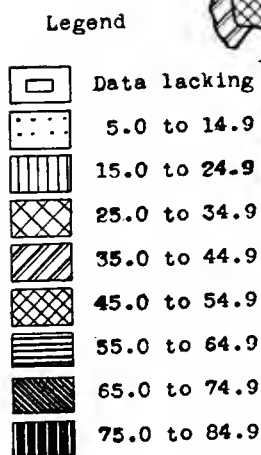
Still it is probably true that the rise of land prices has exerted a greater influence upon tenancy than tenancy has exerted upon the rise of land prices. Lands increasing in value so as to give a high annual rate of return on previous valuations tend to be capitalized at a more conservative rate of interest on the earning power than lands increasing in value more slowly. The tenant is not in a position to pay prices based on such a conservative interest rate. The rise in land prices has doubtless exerted this kind of influence most pronouncedly in the cereal-growing counties. In five counties in Central Illinois the average prices of land and buildings per acre increased over five-fold between 1880 and 1910,⁵⁷ as against an increase of about half as great for the state as a whole. Between 1900 and 1910 the relative increase in the value of land and buildings per acre was about twice as great in the East Central counties as in the Southern counties. The greater multiplying power of capital invested in the old prairie district has had much to do in increasing the size of holdings among land owners and of decreasing the chances for tenants to become owners in those districts.

The historical study shows that tenancy became more prevalent during the time when the state underwent an increase in (1) the percentage of land area improved, (2) the average number of acres per farm, and (3) the average value per acre of

⁵⁶Thompson, J. G., in *Publications of the American Economic Association*, IX, 68-70.

⁵⁷The percentage of increase in the value of land and buildings per acre in the five counties was as follows: Champaign, 551; Douglas, 514; Ford, 545; Moultrie, 596; and Platt, 518. See Census, 1910, VI, 426-435; and 1880, Agriculture, 111, 112.

Percentage of
Farm Acreage
Operated Under
Lease by Tenants
and Part
Owners
Illinois



products and of farm property. To a large extent tenancy has been increased and operation by owners diminished by the changes in these accompanying conditions. The rate of increase in tenancy has been augmented, no doubt, by the declining rate of increase in the farm area. The rate of increase in tenancy has been less than the increase in the value per acre of products and of land, and greater than the increase in the average size of farms.

Considering both sectional and historical aspects of tenancy growth in Illinois it seems to the writer that the extent, distribution and growth of land leasing is best explained in terms of the purchasing power of the rental income of the farms. The ability of an owner to retire from the operation of a farm is not to be measured solely in all cases by his income from that farm. He may have other income-bearing property, although, so far as farm property is concerned it is fair to say that the representative holding is one farm.⁵⁸ Again he may have income from some supplementary occupation, although this condition does not seem to characterize any great number of retired farmers. Landlords whose ownership of land is incidental to their careers in non-agricultural lines are somewhat numerous in some parts of the state. After allowing for these exceptions, it is probable that the purchasing power of the rental income of a farm is the main factor in determining whether the owner rents his place to a tenant or farms it himself.

The rental income of a farm is, of course, only the landlord's share of the economic rent of the place.

The tenant's portion of this annual surplus of returns from cultivation over costs is probably subject to less variation in absolute value than the landlord's portion. This means that the tenant's share in the surplus is probably smaller, relatively, when the surplus is large, and smaller, absolutely, when the surplus is small. The possibility a tenant has of saving is probably greater where the kind of farming operations he engages in is such as to place a premium upon diversified knowledge, operating capital and managerial ability.⁵⁹ Such a condition prevails more especially in Northern Illinois. In Central Illinois the farming method does not require such diversification of

⁵⁸See below, p. 76.

⁵⁹See Stewart, C. L., *An Analysis of Rural Banking Conditions in Illinois*, 19, 20.

technical knowledge, and competition for farms to rent is especially severe.⁶⁰ In Southern Illinois the surplus of operations and the acreage per farm are both small. In Southern Illinois tenancy has undergone very little change; in Central Illinois it has been highest and increasing somewhat; while in Northern Illinois it has been increasing at a rapid rate. In Northern Illinois the prosperity of tenants appears to have been responsible for their tendency to multiply in numbers, while in Southern Illinois the opportunity for tenants to rent seems to have been restricted. In the prairie district of the state tenancy has probably been stimulated by the higher rental income per owner, which has not only freed owners from the necessity of operation, but has caused the land to be capitalized at such a low rate that the tenants are not able profitably to own farms.

To summarize, it appears that the forms of tenure have been phases accompanying, limited by and modifying the conditions and changes in the agricultural economy of the state. The prevalence, sectional character and growth of farming by tenant operators is chiefly governed by the real value of the shares of the owners and tenants in the surplus of operation. Tenancy forms a sort of cumulative index of the effectiveness of the desire of the owners to escape the operation of their land, and of the ineffectiveness of the desire of tenants to become owners.

⁶⁰For several years nearly all news items in Chicago papers relating to cases where from 25 to 50 bids were made for farms offered for rent came from towns in Central Illinois.

CHAPTER IV

A DESCRIPTION OF FARM OPERATORS IN ILLINOIS

The farm operators of Illinois are, with few exceptions, heads of families residing on the farms. In 1890 the number of farm operators was 240,681, of whom 158,848, or 66.0 per cent, operated as owners.¹ At that date 252,953 farm families were reported, of whom 160,065, or 63.3 per cent, resided on farms owned by them.² In 1900 the number of farm operators was 264,151, of whom 158,503, or 60.0 per cent, were owners, 103,698 tenants, and 2,413 "owners and tenants". The number of farm families was 262,388,³ of whom 158,496, or 60.4 per cent, owned farms and 101,817 hired. The almost exact correspondence in these data affords sufficient evidence that in 1890 and 1900 the normal Illinois farm was a "family farm". There is no reason for believing that statistics taken later would show any change in this condition.

THE BASIS OF RENTING

The tenants of Illinois may be described more conveniently after dividing them into classes according to the basis on which they rent. The following table summarizes the census data on this point.

The period, 1880 to 1890, during which the total number of tenants underwent only a slight increase, was the decade of greatest readjustment of terms between the tenants and landlords. The number of share tenants declined 6,973, or 11.7 per cent, while the number of cash tenants increased 8,562, or 41.5 per cent. The percentage of all tenants renting on shares fell from 74.3 in 1880 to 64.3 in 1890. The tendency continued, though much abated, until 1900, when 63.2 per cent of the tenant farms were rented on shares. In 1910 there were 23,665 farms rented on a basis combining the share and cash principles. All these are here counted as share tenant farms, though it is probable

¹Census, 1900, V, lxix.

²The number of families residing on hired farms exceeded the number of farms operated by tenants by 11,055. It is possible that this was due to the reporting of some laborers hiring homes, or of some managers and owners occupying homes on land belonging to a tenant farm.

³Unknown, 2,075.

THE NUMBER OF ALL TENANTS, SHARE AND SHARE-CASH TENANTS, AND OF CASH AND UNSPECIFIED TENANTS, THE PERCENTAGE OF ALL TENANTS IN EACH GROUP, AND THE PERCENTAGE OF INCREASE OR DECREASE IN THE NUMBER IN EACH GROUP OVER THE PRECEDING CENSUS, ILLINOIS, 1880-1910.⁴

Census date	Total		Cash and unspecified		Share and share-cash		Percentage	
	Number	Inc.	Number	Inc.	Number	Inc.	Cash, etc.	Share, etc.
1910	104,379	0.7	37,163	-2.6 ⁵	67,216 ⁶	2.6	35.6	64.4
1900	103,698	26.7	38,173	30.8	65,525	24.5	36.8	63.2
1890	81,833	2.0	29,182	41.5	52,651	-11.7 ⁵	35.7	64.3
1880	80,244	.....	20,620	.....	59,624	.....	25.7	74.3

that a part of the farms rented in 1900 on the combined share and cash basis were then counted as cash tenant farms. To the extent that share-cash tenants were classified as cash tenants in 1900, less significance is to be attached to the decrease from 36.8 to 35.6 between 1900 and 1910 in the percentage of farms rented for cash.⁷

In 1880 there were only 6 counties in the state in which the percentage of tenants renting for cash exceeded 50. All of them were in the Northern division of the state. In 1890 there were 21 such counties, 13 in the Northern division and 8 in the Central division. In 1900 the number of counties in which cash renting predominated was 24, 19 being in the Northern and 5 in the Central part. In 1910 the number of such counties fell to 15, all of them being in Northern Illinois. In 1880 there were 48 counties in which the percentage of farms rented for cash was under 20, 27 were in Southern Illinois, 20 in Central and 1 in Northern Illinois. In 1890 the number of such counties was 33, in 1900, 35, and in 1910, 45. At the last date 36 of the counties

⁴Census, 1910, V, 124, and VI, 438.

⁵Minus sign (—) denotes decrease.

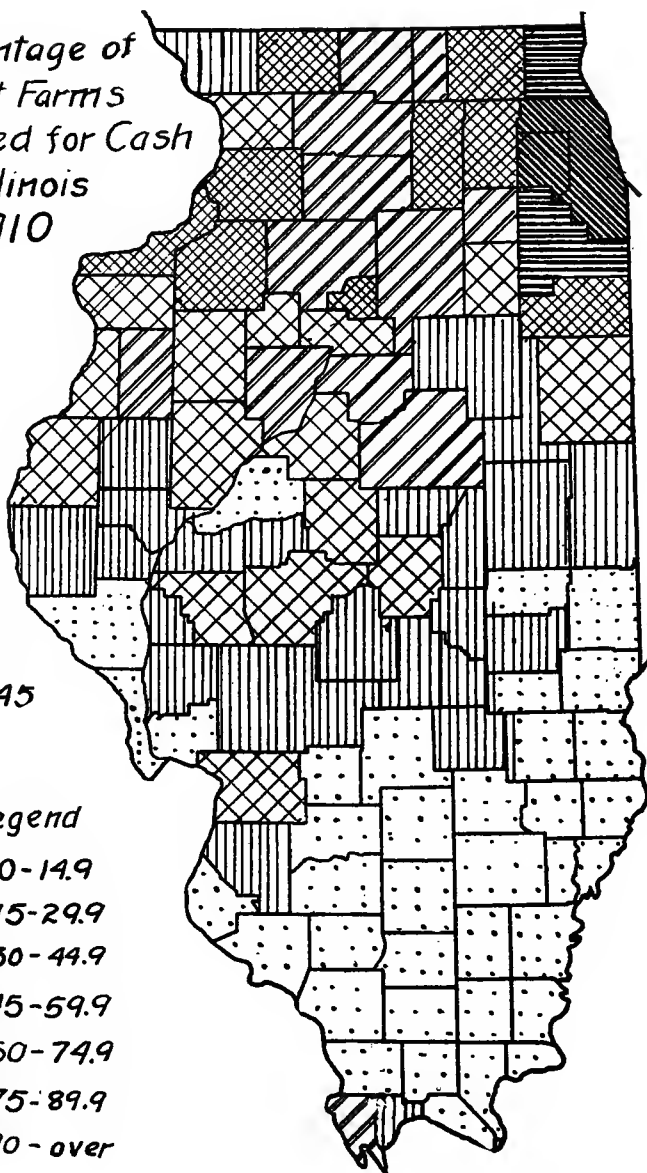
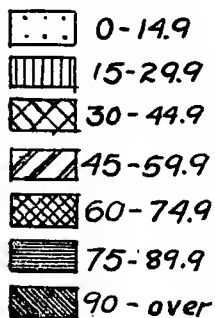
⁶23,665, or 35.5 per cent, were share-cash.

⁷Moreover, the districts of the state in which the greatest decline took place from 1900 to 1910 in the percentage of farms rented for cash were the districts in which the percentage of other than cash tenants renting on the share-cash basis was the highest in 1910. Suggestion, at least, is thus given that the apparent decline in the relative prominence of cash tenancy is due to the classification of some tenants as share-cash tenants in 1910 who in 1900 would have been counted as cash tenants.

*Percentage of
Tenant Farms
Rented for Cash
Illinois
1910*

*Census
1910
Vol VI.
436-445*

Legend



were in Southern Illinois, and the remainder in Central Illinois.

Cash tenancy was relatively most prominent, therefore, in Northern Illinois, and least prominent in Southern Illinois. Since 1900 cash renting appears to have declined in relative prominence in each division of the state. Share-cash tenancy was most prominent, compared with all tenancy other than cash, in the counties of Central Illinois and the old prairie district.⁸

The reasons for this sectional difference will appear as the farms and farm practice of the various kinds of operators are described.

THE ACREAGE OPERATED

The method used by the census in presenting data on the size of farms of various tenures has undergone a change. For 1880 and 1890 the data are given for owners, cash tenants, and share tenants by acreage-groups. In 1900 the acreage-groups are continued and the farms formerly considered as those of owners are itemized into four classes. In 1910 the acreage-group data were not classified by various tenures. In both 1900 and 1910 the total acreages are given, so that averages can be calculated for farms of the several forms of tenure.

The first table shows for the tenth, eleventh, and twelfth census enumerations the percentage of farms belonging to the various size-groups that was operated under each of the several forms of tenure.

The farms of owners constituted a smaller percentage of all farms at the later census dates, and the farms of tenants made up a correspondingly increasing percentage. The farms under 50 acres were operated by owners to a larger extent in 1890 than in 1880, and those between 50 and 100 underwent only a slight increase in percentage of tenancy. The farms having between 100 and 500 acres and those having between 500 and 1000 acres were rented to a much larger degree in 1900 than at previous dates. The same movement toward tenant operation prevailed in the case of the farms over 1000 acres in size, though at a less rapid rate than in the case of the farms having between 500 and 1000 acres.

The percentage of farms operated by tenants in 1900 was highest in the farms between 100 and 175 acres in size, with those 10 to 20 acres next, and those 100 to 499 acres third. Ownership was most prevalent in the farms exceeding 500 acres,

⁸Census, 1910, VI, 438, 447.

PERCENTAGE OF FARMS OF SPECIFIED SIZES OPERATED UNDER SPECIFIED FORMS
OF TENURE, ILLINOIS, 1880-1900.⁹

	Farms of all sizes	Less than 10 acres ¹¹	10 to 19 acres	20 to 49 acres	50 to 99 acres	100 to 499 acres ¹²	500 to 999 acres	1000 acres and over
Own- ers ¹⁰								
1900 ¹³	60.7	64.5	58.4	62.5	61.6	59.5	75.3	81.9
1890	66.0	69.2	64.0	67.0	64.3	66.3	81.9	84.6
1880	68.6	65.1	54.5	58.8	65.1	74.8	87.7	89.8
All tenants								
1900	39.3	35.6	41.5	37.5	38.4	40.5	24.6	18.1
1890	34.0	30.8	36.0	33.0	35.7	33.7	18.1	15.4
1880	31.4	34.9	45.5	41.2	34.9	24.6	12.3	10.1
Cash tenants								
1900	14.5	24.0	16.2	10.1	13.2	15.7	7.5	6.4
1890	12.1	18.6	15.4	8.9	12.4	12.7	5.9	7.0
1880	8.1	16.5	13.1	8.4	8.4	7.1	4.7	2.9
Share tenants								
1900	24.8	11.6	25.3	27.4	25.2	24.8	17.1	11.7
1890	21.9	12.2	20.6	24.1	23.3	21.0	12.2	8.4
1880	23.3	18.4	32.4	32.9	26.5	17.5	7.6	7.2

followed by those under 3 acres.

It is evident that the farms of medium size were most cultivated by tenants, while the farms extraordinarily large and small were most characterized by operation by owners. It is a favorable comment on the ability of tenants to carry on large scale farming that such a large number of the farms over 500 acres are tenant farms, and that renting of the large farms was

⁹Census, 1910, V, 124; 1900, V, 48; 1890, Agriculture, 118, 119; and 1880, Agriculture, 26-29.

¹⁰Including owners proper, part owners, owners and tenants, and managers.

¹¹Data is given for two subsidiary groups, less than 3 acres, and 3 to 9 acres in 1900 and 1880.

¹²Data is given for three subsidiary groups, 100 to 174 acres, 175 to 259 acres, and 260 to 399 acres in 1900.

¹³Data is given separately for owners proper, part owners, owners and tenants, and managers in 1900.

increasing relatively faster than renting of either medium or small farms. On the other hand, this implies that the owners of large farms, though still commonly operating their farms in 1900, were giving up personal operation relatively faster than owners of smaller farms. The large farms are most inaccessible to tenants with the objective of ownership, and, except as division through inheritance takes place, their owners ought to be well able to prevent their disintegration.

The percentage of all farms operated by cash tenants nearly doubled between 1880 and 1890, while that of share tenants remained the same. Among the farms having under 100 acres the percentage of farms operated by share tenants was decreasing and the percentage operated by cash tenants was increasing between 1880 and 1900, and in the case of the farms between 100 and 500 acres and those over 1000 acres, cash tenancy was increasing more rapidly than share tenancy. The trend in tenancy among the farms between 500 and 1000 acres was toward the share basis. As pointed out previously,¹⁴ exclusively cash tenancy was not so prevalent in 1910, as was so-called "cash" tenancy in 1900.

A notion of the amount of land operated by operators of various classes can be obtained from the following table.

THE AVERAGE NUMBER OF ACRES PER FARM OF VARIOUS KINDS OF OPERATORS, AND THE ABSOLUTE AND RELATIVE INCREASE IN THE SAME, ILLINOIS, 1900-1910.¹⁵

Tenure designation	Census date		Increase in acreage 1900-1910	Percentage of increase
	1910	1900		
All operators.....	129.1	124.2	4.9	4.0
Tenants	135.8	122.2	13.6	11.2
Cash .....	.....	124.2	.....	.....
Share .....	.....	121.0	.....	.....
Managers	234.0	233.0	1.1	0.5
Owners and part owners	122.6	124.1	-1.5	-1.2
Owners proper	133.8	118.9	-5.1	-4.3
Part owners	147.5	142.9	4.6	3.2
Owned	83.7	79.9	3.7	4.7
Leased	63.9	63.0	0.9	1.4
Owners and tenants .....	.....	159.1	.....	.....

¹⁴See above, p. 83.

¹⁵Census, 1900, V, 8; and table, above, p. 45.

The lack of acreage-group data in 1910 makes it impossible to pursue this phase of the study with accuracy after 1900.

In 1900 the average size of all farms was 124.2 acres. Cash tenant farms and those of owners, including part owners, were almost exactly the same in average acreage as those of all tenures. Share tenants and owners proper operated smaller farms on the average. The largest farms were those of managers, which averaged nearly twice as large as the farms operated by owners proper. Part owners owned 84 acres and hired 64 on the average. Owners and tenants co-operating operated farms of 159 acres.

In 1910 data are lacking for cash and share tenants and for owners and tenants co-operating. The average acreage for all farms increased 4.0, and an increase in average acreage took place in both the owned and leased portions of the farms of part owners, in the farms of managers, and tenants. In the case of managed farms the increase was slight while in the case of tenants it was most pronounced, being 13.6 acres. The farms of owners proper lost 5 acres, on the average.

Ownership has been declining and tenancy increasing in the districts of larger farms. This accounts in the main for the apparent increase in the size of tenant farms. There seems to be little tendency for the average tenant farm to increase in size in any large part of the state.

THE EQUIPMENT OF THE VARIOUS OPERATORS

The data on farm equipment are not complete, but such as are available are presented in the next few pages.

The percentage of farm land improved in all Illinois farms was 86.2 in 1910 and 84.5 in 1900. The tenants operated farms consisting most largely of improved land,¹⁶ and the farms of managers had the smallest percentage of improved land.¹⁷

The next table shows the value of various items of farm property in the case of farms operated under different forms of tenure.

¹⁶The percentage of tenant farm land improved in 1910 was 88.8 and in 1900, 87.8, as against corresponding percentages of 84.5 and 82.6 for the land owners. See Census, 1910, V, 130.

¹⁷The percentage was 76.7 in 1910 and 74.4 in 1900. See Census, 1910, V, 130.

Land and buildings constituted 88.3 per cent of the value of all farm property in 1900 and 90.2 per cent in 1910. All items of farm property underwent a rise in value between 1900 and 1910. In the case of buildings this was probably due in some measure to better improvement of the farms, but to a greater degree, perhaps, to the rise in the value of building materials, and to a general tendency to value buildings higher because a higher value was being placed on other items of farm property. Implements and machinery and livestock also had higher value per farm and per acre in 1910 than in 1900. In the case of implements and machinery the rise in value is probably due to the utilization of more expensive types. The value of live stock has

AVERAGE VALUE IN DOLLARS OF ALL FARM PROPERTY AND OF THE SEVERAL CLASSES, CLASSIFIED ACCORDING TO THE MAJOR TENURE GROUPS,¹⁸ ILLINOIS, 1910 AND 1900.¹⁹

	All tenures		Owners		Managers		Tenants	
	1910	1900	1910	1900	1910	1900	1910	1900
All farm property								
Per farm	15,505	7,588	13,667	7,203	30,269	17,005	17,719	7,999
Per acre	120.04	61.12	111.51	58.03	129.28	72.99	120.45	65.48
Land and buildings								
Per farm	13,986	6,684	12,170	6,258	27,246	14,833	16,205	7,182
Per acre	108.32	53.84	99.29	50.42	116.41	63.65	119.33	58.78
Land								
Per farm	12,269	5,732	10,363	5,220	23,682	13,004	14,655	6,377
Per acre	95.01	46.17	84.55	42.06	101.18	55.82	107.91	52.20
Buildings								
Per farm	1,716	952	1,806	1,038	3,563	1,829	1,550	804
Per acre	13.30	7.67	14.73	8.36	15.22	7.85	11.41	6.58
Implements and machinery								
Per farm	293	170	285	170	533	246	298	177
Per acre	2.27	1.37	2.32	1.38	2.28	1.06	2.20	1.37
Livestock								
Per farm	1,226	734	1,213	773	2,488	1,928	1,214	650
Per acre	9.49	5.91	9.90	6.23	10.63	9.27	8.94	5.32

¹⁸Data for the minor tenure groups are given for 1900. See Census, 1900, V, 149.

¹⁹Census, 1910, V, 130, 134; VI, 413; and 1900, V, 149, 252.

risen not so much because of increase in the number of animals as in the value per head.

It will be observed that the value of the property in managed farms averaged highest in value at both census dates, and the value per acre of the farm property of managers was greater than that of either owners or tenants in 1900. In 1910, however, the highest average value per acre of farm property was attached to the farms operated by tenants. In the value of buildings, managed farms had the highest average per farm in 1900 and per acre as well as per farm in 1910. The value of buildings on rented farms was lower than on other farms both per acre and per farm in 1900 and 1910. The value of implements and machinery per acre was greatest on the farms of owners at both dates and in 1910 least on those of tenants. The farms on which live stock reached the largest average value per acre and per farm were the farms of managers. On the farms of tenants the value of live stock was less than on the farms of any other kind of farm operator.

The statistics for 1900 show the value of property to be much different when farms are rented for cash than when rented on shares. The value of all farm property per acre in 1900 was greater in the case of cash tenants than in the case of farmers of any other tenure. In value of buildings per acre cash tenant farms were somewhat above the average, while the average value of buildings per acre in this case of share tenant farms was less than in the case of farms of any other form of tenure, being 40 per cent less than on cash rented farms. The value of implements and machinery per acre was greater in the case of cash tenant farms than in that of farms of any other tenure. The value of live stock per acre was above the average on the farms of cash tenants and least in the case of the share tenant farms.

The various classes of operators differ somewhat in the extent to which they keep different kinds of animals on their farms.

Over 90 per cent of Illinois farms in 1910 were reported to have domestic animals, poultry, cattle, dairy cows, and horses.²⁰ Domestic animals, poultry, bees, dairy cows, horses, and swine were reported for a smaller percentage of managed farms and a larger percentage of owned farms than of tenant farms. Mules were reported by a larger percentage of managers than of operators of other tenure. Only in the case of horses and mules

²⁰Census, 1910, V, 130, 142, 146.

did the percentage of owners reporting them fail to exceed the corresponding percentage in the case of other operators.

Domestic animals were distributed among the various classes of operators in very much the same proportion as the number of farms and acres of farm land.²¹ Between 1900 and 1910 the value of domestic animals on the farms of tenants increased at a much more rapid rate than on the farms of owners. Poultry and bees averaged higher in value on the farms of owners than on the farms of other classes of operators.

The value of other than dairy cattle was largest on the farms of owners,²² while the values of dairy cows were distributed among the operators of different tenures more nearly according to the distribution of farms and acreages. Judging from the values reported horses were distributed in almost exactly the same proportions as the improved acreage. Mules were evidently employed to an extraordinarily large extent by managers. Asses and burros, sheep and swine were kept by the operating owners to a disproportionately high degree. In swine, however, the tenants had values approaching their share.

It appears that in the case of all animals but sheep the most valuable stock was on the managed farms.²³ Operating owners possessed the most valuable sheep, but in the case of all other animals the value of their stock per head was even less than that of tenants.

SOME ITEMS OF INCOME AND EXPENDITURE

Data were gathered at the twelfth census showing for the various classes of operators the value of the products of 1899 and the average expenditures for labor and fertilizers.²⁴ The value of products per farm was highest in the case of managed farms and lowest in the case of farms of share tenants. On the basis of values per acre, however, cash tenants held first rank, and co-operating owners and tenants made the least showing. Managers fed to live stock a larger value of products per farm and per acre than other operators. Share tenants fed the least on either basis of comparison.

Co-operating owners and tenants by furnishing their own labor were enabled to cut down the labor expenditures to \$5.00

²¹Census, 1910, V, 142, 150, and VI, 414.

²²Census, 1910, V, 150, 153.

²³Census, 1910, V, 153.

²⁴Census, 1900, V, 149, 232.

per acre, the least of any class of operators. Managers expended the most per acre, \$1.46. The expenditure for fertilizers was so small that comparisons are of little value. It seems, however, that in 1899 the expenditure for fertilizers was least in the case of farms operated by share tenants.

Statistics are presented in the Census to show the tendencies prevalent among operators of different tenures in raising products for the market in 1899.²⁵

Owners operated less than their proportion of the farms whose values of products not fed to live stock were under \$100 and over \$1,000. Owners and tenants, and part owners operated less than their share of the farms with values of unfed products under \$250, and more than their share of the farms in the other value-groups. The managed farms were heavily concentrated in the groups having no unfed products and in all value-groups under \$1000. Cash tenants showed a somewhat similar tendency. Share tenants, however, operated more than their proportion of the farms with unfed products valued at more than \$1000, as well as of the farms with values of unfed products less than \$250.

These data must be interpreted with due allowance for a number of other factors. The size of farms has much to do with the valuableness of the products raised. Small farms and very large farms are operated by owners to a greater degree than are farms of medium size. The figures employed here, moreover, are not based on values of all products raised, but only of those products not fed to livestock on the farms raising them. Farms raising products which are fed to livestock are certainly not, for that reason, less productive of value. Finally, it would be useless and unfair to make deductions from such data as to the relative efficiency of the various classes of operators.

EMPHASIS IN FARM PRACTICE

Statistical evidence on the relation of farm tenure to various types of farming practice relates only to 1899. The census of 1900 classified farms according to the principal source of income as shown by the productions of the preceding year. Changes have doubtless occurred since 1899 both in the number of farms having the specified productions as their principal source of income and in the percentage of farms in each production group operated by the various classes of operators. The following table summarizes the data gathered in 1900 so far as related to Illinois.

²⁵Census, 1900, V, 35.

CLASSIFICATION BY TENURE OF FARMS WITH SPECIFIED PRINCIPAL SOURCES OF INCOME, ILLINOIS, 1899.²⁶

Principal source of income	Number of farms	Percentage of farms operated by					
		Own-ers	Part owners	Owners and ten-ants	Man-agers	Cash tenants	Share tenants
All farms	264,151	46.1	13.0	0.9	0.7	14.5	24.8
Hay and grain.....	107,020	33.3	12.3	0.7	0.7	18.1	34.9
Vegetables	6,656	38.4	10.9	0.5	0.5	35.9	13.7
Fruits	2,411	67.3	10.1	0.7	1.7	8.4	11.7
Livestock	113,674	56.7	14.5	1.2	0.8	9.1	17.8
Dairy produce.....	15,602	50.3	7.9	0.5	0.9	24.5	15.9
Tobacco	138	39.9	22.5	.....	0.7	12.3	24.6
Sugar	60	40.0	16.7	.....	1.7	13.3	28.3
Flowers and plants	499	74.7	5.8	0.8	3.8	14.6	0.2
Nursery products..	126	84.9	7.9	.....	2.4	4.0	0.8
Miscellaneous	17,965	50.2	13.6	1.2	0.6	10.7	23.8

Hay and grain farming was carried on with greatest emphasis by the tenants, particularly the share tenants, while owners operated much less than their proportionate number of such farms. Owners operated less than their share of the farms producing vegetables as their main crop. Tenants operated nearly half of the vegetable farms, and over two-thirds of those rented were on the cash basis. Fruit farms were operated chiefly by owners and managers, the tenants being in charge of only about half their proportionate share. Farmers specializing in livestock were usually owners of their places. All classes of operators except tenants showed a leaning toward live stock farming. The latter were in charge of only two-thirds of their proportionate share of these farms. The renting of live stock farms inclined toward the share basis. The owners proper, managers and tenants operated dairy farms with somewhat greater emphasis than their relative numbers would indicate. As in the case of vegetable farms cash tenancy was much more prevalent than share tenancy. The tobacco and sugar farms were largely operated by part owners. Farms raising flowers, plants and nursery products were operated mainly by owners and managers. So far as such farms were rented it was almost exclusively on the cash basis. The farms whose principal source of income was miscellaneous need not be regarded as farms on which productions were diversified. They are simply those whose principal source of

²⁶Census, 1900, V, 9.

income was some production other than those listed. The tenure of such farms has no peculiarities worth discussing.

The part played by owners in the operation of farms specializing in the different crops is much the same in Illinois as in the country as a whole.²⁷ One exception is that of vegetable farms, 60.4 per cent of which are owned by the operators in the United States, as against a percentage of 38.4 in Illinois. Operation by owners is somewhat more prevalent among farms raising nursery products in Illinois than in the whole country. The place occupied by part owners is more prominent in the cultivation of tobacco farms in Illinois than in the country as a whole, although in the case of farms raising nursery products the opposite holds true. The prominence of managers in the operation of sugar farms which is characteristic of the United States as a whole does not stand out as a feature of the few sugar farms of Illinois. The tenants of Illinois follow very much the same types of farming as those in the rest of the country, except that farms raising dairy produce are rented to a greater extent on the cash basis in Illinois.

The twelfth census also supplied data for ten important crops showing the number of farms reporting, the number of acres raised and the number of bushels harvested in 1899.²⁸ The results of a study of these data are summarized in the following paragraphs.

Corn was raised by almost every farmer in the state in 1899. Irish potatoes and hay and forage were cultivated by two farmers in three, and oats by three in five. The share tenants, owners and tenants, and part owners raised corn to an extent greater than the average. Oats was more widely raised by the cash tenants and part owners; wheat, buckwheat, Irish potatoes, sweet potatoes, hay and forage by part owners and by owners and tenants. Of the tenants those renting on shares contributed more prominently to the production of corn, wheat and sweet potatoes.

The corn acreage per corn farm was greater than the corresponding acreage per farm of any other crop. Oats came second and wheat third. Sweet potatoes and Irish potatoes were raised in patches of very small size. The corn acreage was largest on the managed farms reporting corn. If the farms reporting corn were of the same size as the average farm of each form

²⁷See above, p. 26.

²⁸Census, 1900, VI, 96-107, 220, 221, 342-345, 530 and 531.

of tenure, the percentage of the managed acreage in corn was less than the corresponding percentage of the acreage in farms of other tenures. It seems probable that the percentage of the land devoted to corn production was greater in the farms of cash and share tenants than of other operators.

Considering the percentage of all the land in the state devoted to the production of certain crops it appears that cultivation by owners was especially prominent in the case of sweet potatoes, hay and forage, but was relatively little associated with the production of oats and corn. Part owners and owners and tenants devoted their land to the raising of tobacco, buckwheat and wheat relatively more than to other crops. Managers were especially concerned with raising rye, hay and forage. Cash tenants emphasized the raising of Irish potatoes and barley, and neglected the production of tobacco, wheat and sweet potatoes. Share tenants placed their emphasis on wheat, corn and oats.

The data on yields per acre for each kind of tenure are presented below.

AVERAGE YIELD PER ACRE OF SELECTED CROPS ON ACREAGES CLASSIFIED
ACCORDING TO TENURE, ILLINOIS, 1899.²⁹

Production	Unit	All tenures	Owners	Part owners	Owners and tenants	Managers	Cash tenants	Share tenants
Barley	Bus.	32.1	33.0	31.7	26.8	31.8	31.8	30.3
Buckwheat	"	10.5	10.0	9.9	10.4	8.0	11.4	10.5
Corn	"	38.8	38.3	37.6	35.8	41.6	41.3	38.4
Oats	"	39.5	39.5	38.0	36.5	40.8	40.9	39.2
Rye	"	14.0	13.8	13.9	12.9	16.3	15.5	13.4
Wheat	"	10.8	10.8	10.3	9.8	11.9	13.1	11.1
Potatoes	"	94.9	96.3	95.2	89.1	97.7	95.0	91.1
Sweet potatoes	"	67.9	66.6	74.3	83.4	102.6	68.2	65.4
Hay and Forage.....	Tons	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Tobacco	Lbs.	645.5	660.6	618.8	511.5	643.3	811.4	622.8

Precaution should be taken at the outset against explaining all differences in yields in terms of the relative producing efficiency of the farmers operating under different tenures. In the first place, the farmers of different tenures are not uniformly distributed over the different grades of soil. In the second place,

²⁹Census, 1900, VI, 96-107, 220-221, 342-345, 530, and 531.

climatic conditions, insects, and the like do not ordinarily affect all grades of soil and all kinds of operators in the same way, and certainly not during any one year. Making allowance for these facts it is still worth while to study the foregoing table.

Owners obtained highest yields only in the production of barley. Part owners, owners and tenants, and share tenants showed no unusually large yields in any crops. Cash tenants had the largest yields in buckwheat and tobacco. Cash tenants and managers obtained the highest yields in the production of corn, oats, rye and wheat. Managers stood highest in the yields of hay and forage, and sweet potatoes.

It is an interesting fact that, although the share tenants were cultivating their full portion of the fertile land, they exceeded the average yield only in the production of wheat. Cash tenants, on the other hand, had a yield above the average in the case of every production except barley. The cash tenants are to be found largely in the Northern part of the state where farming practice is more diversified and where live stock plays a more important part in the farming. Perhaps part of the superiority in yields characteristic of the farms of cash tenants was due to larger use of animal matter as fertilizer and to a less degree of specialization in cereal production. The higher yields on the managed farms may likewise be due in considerable measure to superiority of farming method.

MORTGAGE ENCUMBRANCE ON OWNED LAND

As indicated in Chapter I³⁰ mortgage statistics relate only to land operated by the owners, the part owners in most cases having limited their reports to the land owned by them.

The next table summarizes the data on encumbrance of farm property operated by owners in Illinois.

Between 1890 and 1910 the number of all "owned" places declined 9 per cent, the number of mortgaged places decreased 5 per cent, while the number of farms free from mortgage declined 14 per cent. Mortgaging was relatively most prominent in 1900 and appears to have undergone little change since that date. In 1910, 38,662 of the 55,792 farms reported as mortgaged were wholly owned by the operators.³¹ The number of farms of part owners thus reported mortgaged, 17,130, constituted 45.5 per cent of all farms of part owners. The percentage of owners proper

³⁰See above, p. 18.

³¹Census, 1910, VI, 414.

operating under mortgage was 38.3. The fact that the part owners were under mortgage on their owned land in so many cases is not proof either that they have been rising from a lower or descending from a higher economic status. The fact that a part owner operates rented land in addition to a good-sized place of his own is merely evidence that he is influenced to exert extraordinary efforts to clear his land of encumbrance.

THE NUMBER AND PERCENTAGE OF OWNED FARMS AND FARM HOMES MORTGAGED AND UNENCUMBERED, ILLINOIS, 1890-1910.³²

	Owned farms ³³		Owned farm homes		Owned farm homes ³⁴	
	1910		1900		1890	
	Number	Per cent ³⁵	Number	Per cent	Number	Per cent
Total	145,107	.....	158,394	.....	160,065	.....
Free from mortgage	86,713	60.8	92,702	60.7	101,305	63.3
Mortgaged	55,792	39.2	60,663	39.3	58,760	36.7
Unknown	2,602	.....	5,629	.....	.....	.....

The accompanying map shows the difference between counties in the percentage of owned farms under mortgage in 1900. In three counties the percentages exceeded 50.³⁶ Twelve counties had percentages between 45 and 50.³⁷ Most of the counties with high percentages of owners operating under mortgage are river counties in which the farm area has been growing. It seems probable, therefore, that mortgages were laid for the acquisition of newly developed land to a considerable extent in those counties. The East Central counties where land prices have been increasing most rapidly constitute another district of considerable mortgaging. The explanation probably lies in the fact that owners are trying to enlarge their holdings and have employed mortgages to assist them, and that owners and part

³²Census, 1910, VI, 414.

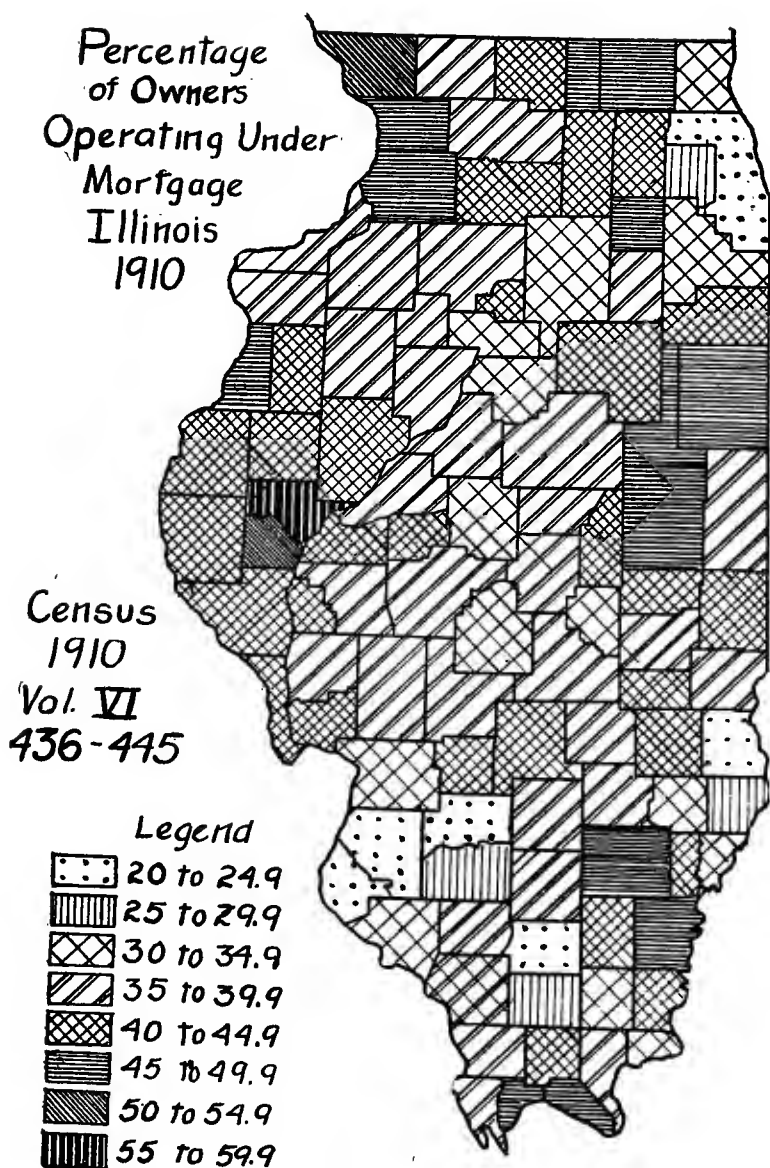
³³Includes all farms owned in whole or in part by the operator.

³⁴The 1,813 "owned farm homes" for which no reports were secured were distributed between "free from mortgage" and "mortgaged" in 1890.

³⁵Per cent of combined total of "free from mortgage" and "mortgaged".

³⁶Brown, 50.7; Jo Daviess, 51.1; and Schuyler, 57.1.

³⁷Whiteside 49.7, Iroquois 47.8, Carroll 47.4, Henderson 47.2, Massac 47.1, Wayne 47.1, Ford 46.8, Champaign 46.2, Pulaski 45.3, McHenry 43.2, Boone 45.1, and White 45.1.



owners who have risen from tenancy have been all the more under the necessity of mortgaging in these districts.

Data regarding the amount of mortgage debt were gathered in 1910 and 1890, but not in 1900. Only the farms consisting wholly of owned land were included in 1910. In 1890 part ownership had not yet been recognized by the census. Of the 38,662 mortgaged farms owned by owners proper in 1910, 1,724 gave no usable reports on debt and value. Taking the statistics at hand, however, the following table is presented.

THE NUMBER OF OWNED FARMS AND FARM HOMES MORTGAGED, THEIR VALUE, THE AMOUNT OF MORTGAGE DEBT AGAINST THEM, THE PERCENTAGE OF VALUE COVERED BY MORTGAGE, AND THE AVERAGE VALUE, DEBT AND EQUITY PER FARM, ILLINOIS, 1910 AND 1890.³⁸

	Owned farms or farm homes mortgaged		Increase	
	1910 ³⁹	1890 ⁴⁰	Amount	Per cent
Number	36,938	78,760	-----	-----
Value—land and buildings....	\$454,857,222	\$285,706,170	-----	-----
Amount of mortgage debt.....	\$115,799,646	\$98,940,935	-----	-----
Per cent of debt to value.....	25.5	34.6	-----	-----
Average value per farm	\$12,314	\$4,862	\$7,452	153.3
Average debt per farm	\$3,135	\$1,684	\$1,451	86.2
Average equity per farm.....	\$9,179	\$3,178	\$6,001	188.8

The average mortgage debt per farm in Illinois in 1910, \$3,135, was exceeded by that prevailing in three other states. These were Nevada, \$4,738; Iowa, \$4,048; and Nebraska, \$3,154.⁴¹ The average equity per farm in Illinois in 1910, \$9,179, was exceeded in three other states: Nebraska, \$11,322; South Dakota, \$10,782; and Iowa, \$10,526. It will be observed that all of these states are located west of the Mississippi river. In ratio of debt to value in 1890 and in 1910 the percentage in Illinois was exceeded in 26 states. Most states in which the percentage of value covered by mortgage exceeded that in Illinois were located east of the Mississippi. It appears, therefore, that Illinois has shared with the Western states the tendency for land values to

³⁸Census, 1910, VI, 415.

³⁹Includes only farms consisting wholly of owned land and reporting value of farm and amount of debt.

⁴⁰Includes all owned farm homes, estimates being made of value of farms and amount of debt for all defective reports.

⁴¹Census, 1910, V, 167.

increase more rapidly than mortgage indebtedness, rapid as the increase in indebtedness has been.

A map is also presented illustrating by counties the percentage of value of owned farms covered by mortgage in 1910. For the most part it appears that the counties with the highest percentages were located in Northern Illinois. The lowest percentage was that of Calhoun county, 3.1.⁴² Low percentages characterize the counties in East Central Illinois and in the eastern half of Southern Illinois. In the case of the East Central Illinois counties, the low percentages are probably explained by the rapid rise in land values characteristic of the ten or twelve years preceding 1910. In Southern Illinois, though land values have not run away from mortgage indebtedness so rapidly, there has not been the stimulus toward mortgaging such as that afforded by the rate of advance in land prices in other parts of the state. In Northern Illinois the practice of mortgaging the value of the land heavily seems to be most prevalent. That this is due to lack of prosperity seems hardly likely, for the existing evidence, meager though it is, points to a greater prosperity, especially among tenants, in that part of the state.⁴³ Such being the case, the suggestion arises that probably the chances for land acquisition are stronger in Northern Illinois. Since the farming practice is such as naturally to conserve the soil and since land prices have not been so much affected by increment, the proportion of the acre value for which mortgages can be negotiated is larger.⁴⁴

On the whole it appears that the "calamity" element has not been a significant cause of mortgaging in Illinois, though no specific investigations of that feature have been made in the last twenty-five years.⁴⁵ Since the data are limited to operating owners the mortgaging of leased land has been left out of consideration. This is commonly supposed to be a small factor, yet

⁴²This is so much less than the percentages in adjacent counties as to lead one to suspect the accuracy of the reports.

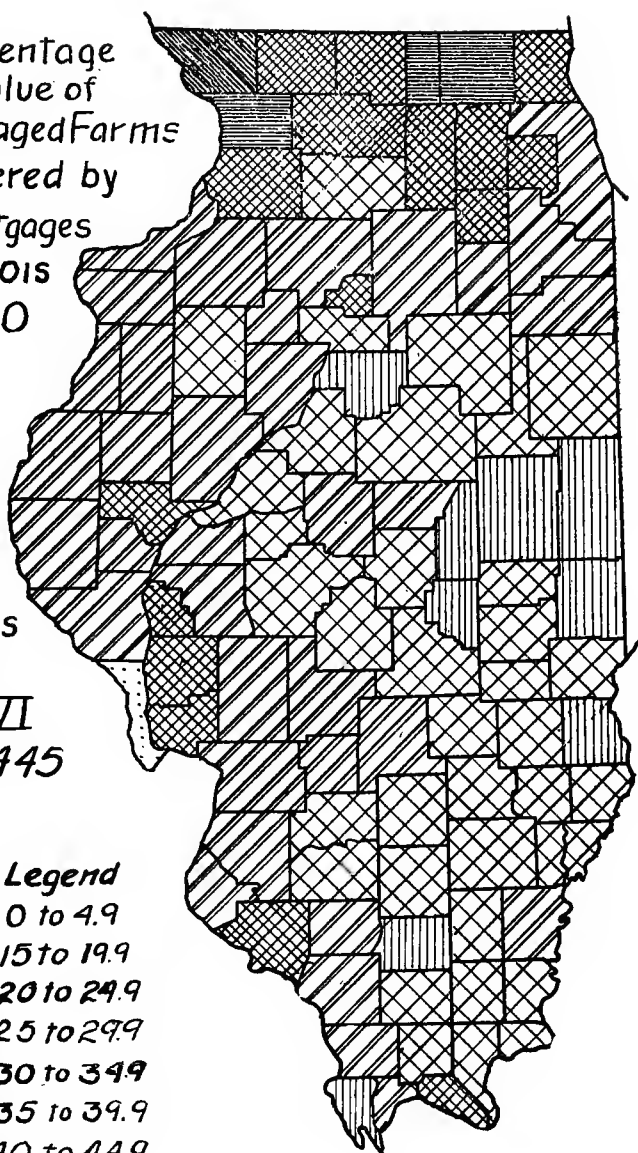
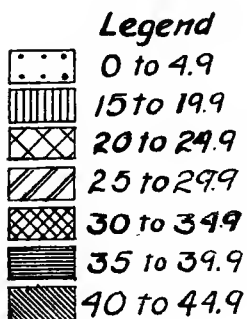
⁴³Stewart, C. L., *Analysis of Rural Banking Conditions in Illinois*, 19 and 20.

⁴⁴*Ibid.*, 14 and 15.

⁴⁵The only investigations from which any light can be obtained on this question in Illinois were those of the Bureau of Labor Statistics of Illinois covering the dates 1870, 1880, and 1887, reported by Secretary John S. Lord in the Fifth Biennial Report of the Bureau, 1888, and that of the United States census of 1890, reported in the volume on Farms and Homes: Proprietorship and Indebtedness.

Percentage
of Value of
Mortgaged Farms
Covered by
Mortgages
Illinois
1910

Census
1910
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an investigation of the question under a regime of rising land prices might reveal some important facts.

RACE, COLOR AND NATIVITY OF FARMERS

Statistics on race, color and nativity of farmers were gathered in 1890, 1900 and 1910. At the census of 1890 the basis of investigation was the occupier of the farm, in 1890 the occupier of the farm home, and in 1910 the operator of the farm. The following table summarizes the data for Illinois by major nativity groups.

THE COLOR AND NATIVITY OF FARMERS CLASSIFIED BY TENURE, ILLINOIS,
1890-1910.⁴⁶

Color and nativity groups	Date	All farmers	Percentage in each group	Owners	Tenants	Managers	Percentage of group classified as		
							Owners	Tenants	Managers
Total	1910	251,872	100.0	145,107	104,379	2,386	57.6	41.4	0.9
	1900	262,180	100.0	158,394	101,728	.....	60.4	39.6	.....
	1890	252,953	100.0	160,065	92,888	.....	63.3	36.7	.....
Native white	1910	217,053	86.2	123,907	91,014	2,132	57.1	41.9	1.0
	1900	208,884	79.7	124,498	82,662	.....	59.7	40.3	.....
	1890	190,234	75.2	117,223	73,011	.....	63.7	36.3	.....
Foreign-born white	1910	33,394	13.3	20,411	12,747	236	61.1	38.2	0.7
	1900	51,722	19.7	33,059	18,345	.....	64.1	35.9	.....
	1890	61,044	24.1	42,080	18,964	.....	69.2	30.8	.....
Negro and other non-white ⁴⁷	1910	1,425	0.6	789	618	18	55.4	43.4	1.3
	1900	1,574	0.6	837	721	.....	53.2	46.8	.....
	1890	1,675	0.7	762	913	.....	45.7	54.3	.....

⁴⁶Census, 1910, VI, 416; 1900, II, 715, 744; and 1890, *Farms and Homes*, 567, 591.

⁴⁷The number of non-whites other than negroes was made up as follows: Chinese and Japanese, 1910, 1, 1900, 5, and 1890, 2; Indians, 1910, 2, 1900, 0, and 1890, 3.

It appears that the percentage of Illinois farmers who were native-born whites increased from 75.2 in 1890 to 86.2 in 1910. The percentage of native-born white farmers owning their farms was at each date less than the corresponding percentage among foreign-born white farmers. The farm managers were foreign-born in relatively few instances. The negro and other non-white farmers declined in number during each decade, and at each date constituted less than 0.7 per cent of all farmers in the state. The percentage of negro and other non-white farmers owning their farms was at each date smaller than the corresponding percentage for either group of white farmers, but increased at a rapid rate during the twenty years. The growth of ownership among non-white farmers in Illinois contrasts with the decline in ownership among the white farmers of the state.

The number of non-white farmers other than negroes was 5 in 1890 and 1900 and 3 in 1910. Separate data for the negroes were not reported in 1910. In 1890 and 1900 the percentage of their farms and homes owned by them was 43.2 and 53.7, respectively.⁴⁸ In 1900 the percentage of negro farmers in each tenure group was as follows: owners, 36.5; part owners, 11.5; owners and tenants, 0.8; managers, 0.3; cash tenants, 14.6; and share tenants, 36.3.⁴⁹ The discrepancy between the figures is possibly due to home ownership in some cases unaccompanied by farm ownership. Tenancy, especially share tenancy, was more common among the negro farmers than among the white farmers.⁵⁰

Data on the country of nativity of occupiers of farms and

⁴⁸Census, 1900, II, 714; and, 1890, *Farms and Homes*, 567.

⁴⁹Census, 1900, V, 50, 52. The corresponding percentages for farms operated by whites in 1900 were: owners, 46.1; part owners, 13.0; owners and tenants, 0.8; managers, 0.7; cash tenants, 14.5; and share tenants, 24.8.

⁵⁰The negro farmers in Illinois in 1899 were specializing in vegetable, fruit, tobacco, sugar and miscellaneous lines of farming to a greater extent than were white farmers. The farms of negroes were much smaller than those of white farmers, the percentage of farms under 50 acres in size being 66.5 in the case of colored farmers as against 22.8 in the case of white farmers. (Census, 1900, V, 51, 53.) The negro farmers of Illinois are located chiefly in the Southern counties. The counties in which the percentage of farms run by negroes in 1900 was 1.0 or over are as follows: Pulaski, 31.3; Alexander, 13.6; Massac, 8.2; Pope, 3.2; Saline, 3.0; Jackson, 2.2; St. Clair, 1.8; Madison, 1.6; Clinton, 1.5; Lawrence, 1.3; White, 1.2; Sangamon, 1.1; Randolph, 1.0; and Hardin, 1.0. (Census, 1900, V, 73-75).

farm homes in Illinois are available for 1890 and 1900,⁵¹ and, in a form scarcely comparable with the data of preceding dates, in 1910.⁵²

The number of occupiers of farm homes in Illinois in 1900 who were not born in foreign countries is given as 156,688 in this series, while in the last table the number of farmers who were native-born whites in 1900 was 208,864. The discrepancy casts discredit upon the statistics. It appears, nevertheless, that the Germanic was the strongest single element among the farmers in the state, and that those born in the British isles were next in relative numbers.

The percentage of ownership in 1890 was above the average among the Austro-Hungarians, the French (both Canadian and European), the Germans, Irish, Scotch, Italians, and those coming from Russia and Poland. In 1900 the percentage of ownership was above the average among the Austro-Hungarians, the British, particularly the Irish, the Italians and the Polish. Ownership free from encumbrance in 1890 was especially characteristic of the Austro-Hungarians, the French, the Germans, the Scotch, and the Italians, and in 1900 was found especially among the Austro-Hungarians, the Germans, the Italians and those from "other countries". The percentage of ownership was least among the Scandinavians. Those born in Russia and Poland were characterized by ownership in a high degree, but were largely under mortgage.

RESIDENCE AND LANDED WEALTH OF OWNERS

The twelfth census was the only one at which data were gathered on the residence and landed wealth of the owners of rented farms. Nearly nineteen out of each twenty rented farms were owned by residents of the state.⁵³ Of the remaining 5.5 per cent of the farms, three-fifths were owned by residents of the North Central states. The owners residing in the North Central states owned the largest number of rented farms each. The 27 owners residing in foreign countries held 28 rented farms.

Of the 98,730 rented farms with residence of owners known,

⁵¹Census, 1900, II, 744; and 1890, *Farms and Homes*, 591.

⁵²Census, 1910, VI, 416.

⁵³Census, 1900, V, 309.

The number of rented farms with owners reported is less than the total number of tenant farms reported in other tabulations. The incompleteness of the data, however, need not be regarded as greatly injuring their usefulness.

76.8 per cent were held by owners residing in the same county; 17.9 per cent were held by owners residing in other Illinois counties; and 5.3 per cent by owners residing in other states.⁵⁵ The average acreage and the average value per farm were least in the case of the rented farms of owners residing in the same county, and most in the case of those of owners residing in other counties of the state. The average value per acre, however,

The tendencies in ownership among the different population elements in Illinois is shown in the next table.

PERCENTAGE OF FARMS AND HOMES OWNED AND RENTED BY OCCUPIERS BORN IN VARIOUS COUNTIES, ILLINOIS, 1890 AND 1900.⁵⁴

Nativity of occupiers	Percentage of places				Percentage of Owners			
	Owned		Rented					
	Farm homes	Farms	Farm homes	Farms	Free		Encumbered	
	1900	1890	1900	1890	1900	1890	1900	1890
All occupiers	60.9	63.3	39.1	36.7	60.7	63.3	39.3	36.7
Austria-Hungary	65.9	66.6	34.1	33.3	63.2	66.3	36.8	33.7
Canada (English)	56.4	59.8	43.6	30.2	55.9	56.2	44.1	43.8
Canada (French)	57.7	71.8	42.3	28.3	46.6	52.3	53.4	47.7
France .....	.....	74.7	.....	25.3	.....	68.8	.....	31.2
Germany	59.7	68.2	40.3	32.8	61.8	66.1	38.2	33.9
Great Britain.....	66.4	60.6	33.6	39.4	55.2	62.6	44.8	38.4
Ireland	68.5	78.8	31.5	21.2	59.2	62.7	40.8	37.3
Scotland .....	.....	79.8	.....	20.2	.....	69.0	.....	31.0
Italy	66.0	79.1	34.0	20.9	61.0	68.8	39.0	31.2
Russia and								
Poland	81.3	81.3	18.7	18.7	46.6	50.5	53.4	49.5
Poland	84.6	.....	15.4	.....	44.6	.....	55.4	.....
Russia	46.6	.....	53.4	.....	64.2	.....	35.8	.....
Scandinavia	44.8	52.4	55.2	47.6	44.6	47.9	55.4	52.1
Mixed foreign parentage	56.8	.....	43.2	.....	56.2	.....	43.8	.....
United States (or unknown)	61.4	61.4	38.6	38.6	62.3	63.7	37.7	36.3
Other countries..	55.4	60.1	44.6	39.9	62.9	65.4	37.1	34.6

⁵⁴Census, 1900, II, 744; and 1890, *Farms and Homes*, 591.

⁵⁵Census, 1900, V, 310, 311.

was greatest in the case of the farms of those owners residing in the county in which the farms were located and least in the case of those dwelling in other counties of the state. The percentage of tenant farms rented for cash increased with the distance of the owners from their farms, although 65 per cent of the rented farms owned by residents of other states were leased on the share basis.

The table on the next page throws light on the concentration of ownership of rented farms as shown by the census of 1900. It is to be regretted that similar data are not available for 1910.

The first column shows data based on the number of owners of rented farms. Of these owners 85.0 per cent owned a single farm each, 95.3 per cent owned fewer than three farms, and 98.8 per cent owned fewer than five farms. Fewer than 200 acres each were owned by 74.6 per cent of the owners. One owner of rented farms in 1000 owned over 2500 acres. The value of the farms was under \$5000 in the case of 48.2 per cent of the owners, and exceeded \$25,000 in the case of 5.3 per cent.

The second, third and fourth columns are based, not on owners, but on rented farms possessed by owners of various classes. Of the rented farms 68.0 per cent were owned by owners holding deeds to one farm each, and 7.8 per cent by owners possessing over five farms each. The farms belonging to owners of one farm each were slightly below the average in size and still more so in value. Those belonging to owners of two and under five farms were somewhat above the average in size and value. Those possessed by owners of ten and under twenty farms were above the average in both size and value, especially in value. One per cent of the rented farms were held by owners of twenty farms and over, and these farms were above the average in size, but below the average in value.

The farms possessed by owners owning under 200 acres were below the average in acreage and value, while the farms of all owners holding more than 200 acres of rented land were above the average in those respects. It is more natural to expect this to be true regarding the acreage than the value. The rented farms belonging to owners of 2500 acres or more were farther below the average in value than those in any other group. Considering value alone, however, there was considerable concentration of ownership in the hands of farm owners owning 500 or more acres.

The classification of rented farms according to the value

THE PERCENTAGE OF OWNERS OF RENTED FARMS WHO POSSESSED SPECIFIED AMOUNTS OF FARM PROPERTY; THE PERCENTAGE OF RENTED FARMS POSSESSED BY EACH CLASS OF OWNERS OF RENTED FARMS; AND THE PERCENTAGE OF ACREAGE AND OF THE VALUE OF ALL RENTED FARMS COMPRISED IN THE FARMS OF THE VARIOUS CLASSES OF OWNERS, ILLINOIS, 1900.⁵⁶

Basis of classifying owners of rented farms	Percentage of			
	Owners of rented farms who possess	Rented farms held by owners who possess	Acreage of all rented farms of owners who possess	Value of all rented farms in farms of owners who possess
Number of farms				
One	85.05	67.00	65.88	64.82
Two	10.30	16.23	16.50	16.62
Three and under five.....	3.49	8.99	9.83	9.83
Five and under ten.....	0.95	5.03	4.99	5.10
Ten and under twenty.....	0.17	1.69	1.74	2.68
Twenty and over.....	0.04	1.06	1.14	0.96
Acres				
Under 100	40.07	33.05	12.96	13.48
100 and under 200.....	34.57	30.40	28.84	30.60
200 and under 500.....	21.93	25.84	38.38	38.06
500 and under 1000.....	2.73	6.58	10.89	10.51
1000 and under 2500.....	0.60	2.98	5.18	4.87
2500 and over.....	0.10	1.15	3.73	2.48
Value				
Under \$1000.....	10.75	8.83	2.18	0.62
\$1000 and under \$2000.....	10.18	8.63	4.18	1.56
\$2000 and under \$5000.....	27.28	23.52	16.46	11.60
\$5000 and under \$10,000.....	25.35	19.59	19.04	17.06
\$10,000 and under \$25,000.....	21.12	26.58	37.14	41.40
\$25,000 and over.....	5.32	12.85	20.99	27.76

of rented farms owned by their owners shows that those owned by owners holding a value of less than \$10,000 were considerably below the average in size and value per acre. Rented farms owned by owners whose holdings in such farms had a value ex-

⁵⁶Census, 1900, V, 312-317.

ceeding \$10,000 were above the average both in size and in value.

On the whole it appears that the owners of larger and more valuable areas of land have their land operated on a scale above the average. The concentration of holdings in the hands of the wealthier land owners, while not great, was considerable.

AGE OF OPERATORS IN RELATION TO TENURE AND ENCUMBRANCE

Statistics were gathered on the ages of operators in 1890, 1900 and 1910.

The percentage of all farmers who were under 25 years of age was greater in 1910 than at the earlier dates.⁵⁷ This was due chiefly to the relative increase in the prominence of younger tenants. Farmers between 25 and 34 years of age declined in relative numerical importance among both owners⁵⁸ and tenants from 1890 to 1910. Those between 35 and 54 years old increased in relative numbers among both owners and tenants between 1890 and 1910. Those 55 years old and over declined in relative prominence among both classes of operators. This decline was especially marked in the case of those 65 years old and over as shown by the data for 1900 and 1910.

The graph illustrates the distribution of the owners and of the tenants among the age-periods for 1890, 1900 and 1910.⁵⁹ The age period, 35 to 44, is one which included a slightly higher percentage of the tenants than of the farmers.⁶⁰ The ages under 35 included a greater portion of the tenants than of the owners, while the ages over 44 included a much greater portion of the owners than of tenants. The percentage of owners comprised within the age-groups increased with each succeeding age-period.

⁵⁷Census, 1910, bulletin, Agriculture: United States, *Age of Farmers*, 25; 1900, V, 727; and 1890, *Farms and Homes*, 618.

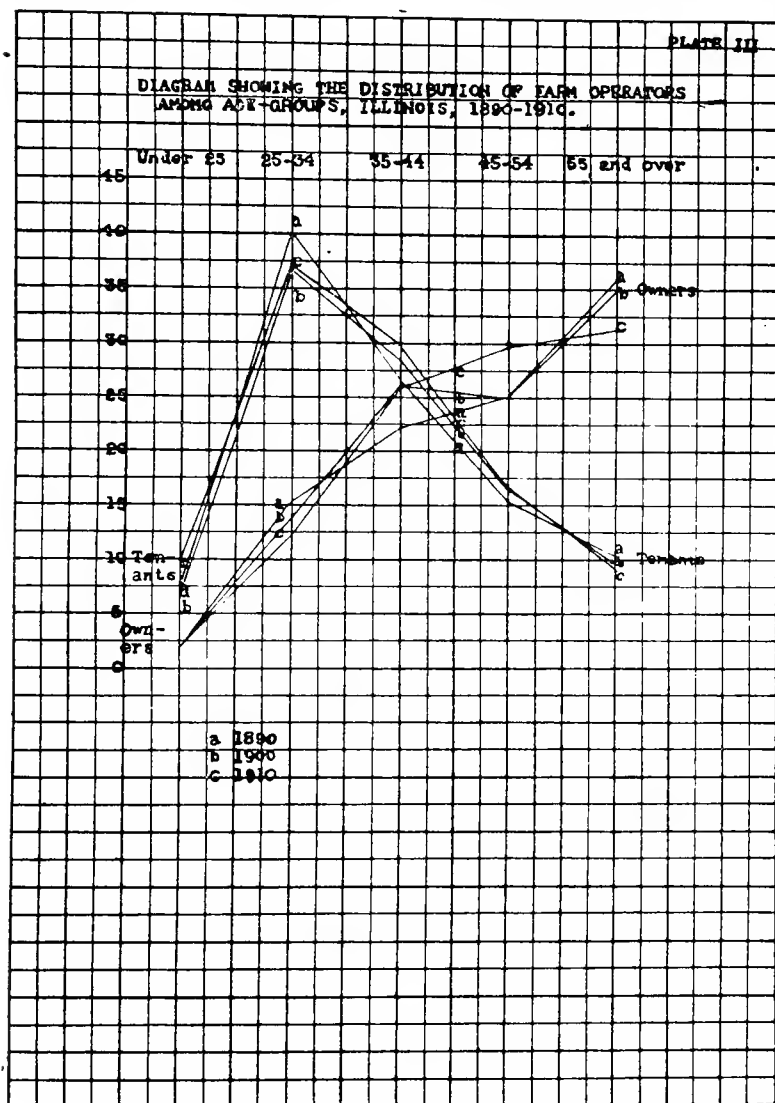
⁵⁸Including part owners in this series of statistics.

⁵⁹See also Taylor, H. C., *The Place of Economics in Agricultural Education and Research*, 108-110.

⁶⁰The census of 1910, the only one giving such statistics, affords evidence that the age of the operator seems also to have something to do with the basis on which he rents land. While 35.8 percent of the operators in all age-groups rented on a cash basis, the percentage varied as follows: under 25 years, 26.2; 25 and under 35 years, 34.4; 35 and under 45 years, 38.0; 45 and under 55 years, 38.2; 55 and under 65 years, 37.8; and 65 years and over, 42.8. (Census, 1910, bulletin, Agriculture, United States, *Age of Farmers*, 25).

This evidence points to an improvement in the economic and technical status of tenants as their years advance.

In the case of tenants the percentage comprised within the age-group, 25 to 34, was greatest, and declined steadily with the succeeding age-periods. It is evident, therefore, that youth is much



more characteristic of the tenants than of the owners, and that age seems to increase the chances for ownership.

The percentage of farm operators under 25 years of age who owned their land was 27 in 1890, 23 in 1900 and 17 in 1910. The percentage of operators 55 years old and over who rented their places was 14 in 1890, 15 in 1900 and 17 in 1910. It seems that ownership among younger farmers has been declining and that tenancy has been increasing among older operators. Apparently, the period of tenancy through which many farmers must pass on their way to ownership has been growing longer. This is especially true since 1900.

The age of owners free from mortgage encumbrance and of those having mortgages on their places is likewise shown by data for the last three census dates. Although the basis of the data is somewhat different on the various occasions, the difference is so slight as to be practically negligible in this sort of a comparison.

THE PERCENTAGE OF OWNERS IN EACH AGE-GROUP OWNING THEIR PLACES FREE AND ENCUMBERED, ILLINOIS, 1890-1910.⁶¹

Age-period	Percentage of owners					
	Free			Encumbered		
	1910	1900	1890	1910	1900	1890
Under 25 years.....	24.2	56.7	63.4	65.8	43.3	36.6
25 and under 35 years.....	28.0	48.6	51.0	72.0	51.4	47.0
35 and under 45 years.....	36.3	50.6	56.0	63.7	49.4	43.1
45 and under 55 years.....	46.4	58.1	61.4	53.6	41.9	38.6
55 years and over.....	65.1	69.3	72.5	34.9	30.7	27.5
55 and under 65 years.....	58.6	65.3	.....	41.4	34.7	.....
65 years and over.....	74.7	74.5	.....	25.3	25.5	.....
Total.....	47.2	58.6	63.2	52.8	41.4	36.8

It appears that, in general, freedom from mortgage encumbrance increased with advancing age. Those under 25 years old were exceptions to the general trend, because, doubtless, in many cases they were heirs who had received their land clear of indebtedness. The age-period, 25 to 34, however, was one during which the percentage of mortgage encumbrance was very heavy. At each census the succeeding age-period showed declining

⁶¹Census, 1910, bulletin, Agriculture: United States, *Age of Farmers*, 25; 1900, V, 727; and 1890, *Farms and Homes*, 618.

percentages of owners encumbered, indicating in most cases successful escape from indebtedness. The decline in freedom from encumbrance was more rapid between 1900 and 1910 than between 1890 and 1900.

The owners in the age-groups under 45 years were relatively less free from mortgage encumbrance at the later census dates than those in the age-groups 45 years and over. The decade, 1890 to 1900, was one of relatively little change, while that following 1900 was one of decided decline in the case of all ages under 55 years. It appears, therefore, that the period required for removing mortgage incumbrance from farms has been lengthened in Illinois.⁶²

SUMMARY

By way of summary the following are the outstanding facts relative to farm operators in Illinois. The farmers operate chiefly as heads of families. Share tenants has been more prevalent than cash tenancy, though cash tenancy predominates in the Northern part of the state and has been more characteristic of tenants who were advanced in years and who were operating farms whose owners were resident at a considerable distance from their farms. The farms of medium size were chiefly cultivated by tenants, while the largest and smallest farms were most characterized by operation by owners. There was a tendency toward the cash basis in the case of farms under 500 acres, and toward the share basis in the case of those over 500 acres. During the ten years, 1900 to 1910, the farms of owners proper declined in size, and those of tenants underwent a decided increase due, probably, to the decline in ownership in the districts of larger farms. The tenants were in charge of more than their proportion of the improved acreage.

The farms of no single form of tenure can be held to be superior in all ways. Managed farms had the highest value in buildings and live stock per acre, and farms of owners were characterized by the highest value of implements and machinery per acre. In values of domestic animals the farms of tenants were below the average, when either the total value or the value

⁶²A certain amount of evidence on this point is afforded by the fact that there is growing discontent among bankers with the practice of renewing mortgages, and an agitation for lengthening the period of mortgages in Illinois. See Stewart, C. L., *An Analysis of Rural Banking Conditions in Illinois*, 13, 14, 20, 21.

per head is considered. The farms of tenants were largely devoted to the production of the money crops. This was particularly true of share tenant farms. Yields were superior in the case of farms operated by managers and by cash tenants.

Operating owners have shown little tendency to increase the mortgages on their farms since 1900, and the rate of increase of the equity has greatly exceeded that of the indebtedness.

The farms were mostly in the hands of white farmers, with a decreasing percentage of foreign-born. This decrease may be due to the ability of the foreign-born to pass the ownership of their land to children born in this country.

The owners of rented farms in 1900 were resident in the state in about nineteen cases in twenty, and in three cases out of four were resident in the same county in which the farms were located.

Concentration in the ownership of rented farms is seen in the fact that in 1900, 1.16 per cent of the owners of rented farms were in possession of 7.78 per cent of the rented farms, comprising 7.87 per cent of the acreage and 8.74 per cent of the value of rented farms.

It was shown by the age statistics that young operators were more generally characterized by tenancy, especially on the share basis, and that young owners were most heavily encumbered. Advancing years tended to replace share with cash tenancy, tenancy with ownership, and encumbrance with freedom from mortgage debt. The latest census data, however, indicate that an influence is at work restraining this movement.

CHAPTER V

THE RELATION OF TENURE TO RURAL ECONOMIC AND SOCIAL CONDITIONS IN ILLINOIS

The tenure of land in Illinois is closely related to a number of prevailing tendencies having a political and social significance. Not least important of these tendencies is the change in the number of people living on the farms of the state.

THE DECLINE IN RURAL POPULATION

The existing data make it difficult to get accurately at the decline in rural population in Illinois counties. Data are afforded for the incorporated places in the entire state and for the total population of each county. "Unincorporated population," of course, is not to be identified with "farm" population. Some farm operators and laborers live in incorporated places. Some of those dwelling outside of incorporated places follow a line of occupation in cities, some others are engaged in exploiting mineral wealth, such as coal, oil, and gas, and a few conduct country shops and stores. Whether the absolute figures for the unincorporated population approach closely the actual farm population is hard to say. It is probable, however, that the change in the unincorporated population is not greatly different from the change in the actual farm population. The incorporation of places has been more completely accomplished at the later dates, but an inspection of the statistics shows this source of declining unincorporated population to be of slight importance. Moreover, the place held in the unincorporated population by miners and others occupied in non-agricultural pursuits has probably been an increasing one. All things considered, therefore, the change in the number of people dwelling outside of incorporated places may be regarded as a fair index of the change in farm population.

During the twenty years, 1890 to 1910, there was a decline in the unincorporated population of 87 counties and an increase in 15 counties. The decline in the state as a whole was 7.2 per cent. The following table shows this change somewhat more in detail.

THE NUMBER OF COUNTIES IN WHICH THE UNINCORPORATED POPULATION INCREASED AND DECREASED, BY GEOGRAPHIC DIVISIONS, ILLINOIS, 1890-1910.

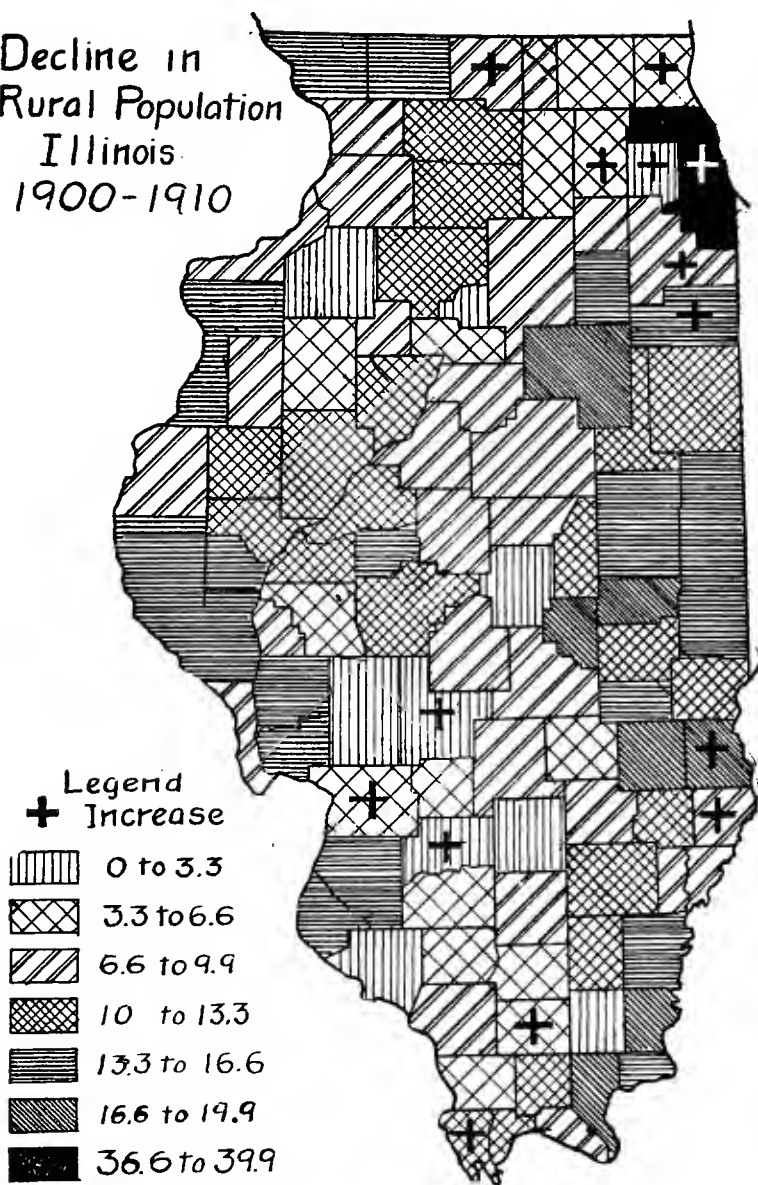
Period	The state		Divisions					
			Northern		Central		Southern	
	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.
1890-1910	15	87	7	17	1	36	7	34
1900-1910	14	88	7	17	0	37	7	34
1890-1900	35	67	11	13	5	32	19	22

It is apparent that during each of the two decades the unincorporated population was declining in most of the counties. In the state as a whole, the decline was 1.6 per cent between 1890 and 1900 and 5.7 per cent between 1900 and 1910. The unincorporated population of the counties of Central Illinois showed the least tendency to increase during either decade of the period. The proportion of counties in which an increase took place between 1890 and 1900 was largest in Southern Illinois, and between 1900 and 1910 was largest in Northern Illinois. In 9 of the 14 counties in which an increase took place in the unincorporated population between 1900 and 1910 an increase had occurred during the preceding decade. Of these 9 counties 5 were within a radius of 50 miles of a large city, 3 were marked by the development of mineral resources, and 3 were river counties in which the farm area was being expanded during the period following 1890. Of the 5 other counties in which the unincorporated population increased between 1900 and 1910, 3 were adjacent to large cities.

The increase in unincorporated population appears, therefore, to have been due in large measure to exceptional conditions, such as proximity to large urban centers, the inclusion of new farm land, and the exploitation of mineral wealth by people who were enumerated as resident outside of incorporated places. Urban centers exert their influence not only by giving a more intensive tone to the agriculture, but also by filling the surrounding country with residents who belong rather to the city than to farm population.

It is important to observe, first, the relation of the population actually engaged in agriculture to the total unincorporated population. The population actually engaged in agriculture increased from 430,134 in 1890 to 444,242 in 1910. In 1900 it stood at 461,014. Though the decline in the number engaged in

Decline in
Rural Population
Illinois
1900-1910



agriculture may have helped to account for the decline in unincorporated population after 1900 it could not account for the decline between 1890 and 1900.

The number of people dwelling outside of incorporated places in excess of those actually engaged at farming was 1,206,081 in 1890, 1,149,540 in 1900, and 1,074,022 in 1910, a decrease of 132,059 in the twenty years. While the number actually occupied at farming increased 3.3 per cent during the two decades, the rest of the unincorporated population declined 11.0 per cent. The percentage of the unincorporated population actually engaged in agriculture was 26.4 in 1890, 28.8 in 1900 and 29.4 in 1910. It is suggested, therefore, that a part of the rural decline is due to such causes as reduction in the size of families, removal or disappearance of persons not occupied at any line,¹ and the reduction in the relative number occupied at other than agricultural pursuits while resident in the country.

The number actually engaged in farming would be still larger in Illinois but for the fact that improvements in machinery make it possible for an individual to cultivate a large area. The acreage of all farm land per individual actually engaged in farming in Illinois was 71.2 in 1890, 71.4 in 1900 and 73.5 in 1910; or, considering improved acreage only, 60.0 in 1890, 60.3 in 1900, and 63.4 in 1910. There can be no doubt that the land is being farmed with less human labor.

The change in rural population thus appears to be more a symptom and consequence of general economic changes than a causal factor. It is probable, however, that the readjustments in rural population have at least offered occasion for, and often have been causes affecting the prevalence of particular forms of tenure. The movement of owners to the city has doubtless led to a larger portion of the land owned by them being rented, both before and after the title changes to their heirs. The movement of farm families has doubtless been accompanied by the enlargement of areas of operation, if not by the growth of holdings.

The changes in tenure have contributed not so much to reduce the number of unincorporated inhabitants as to change the composition of the rural population.

¹The percentages of the total population occupied in Illinois in 1890 was 35.4; in 1900, 37.4; and in 1910, 40.7. See above, p. 35.

CO-OPERATIVE ENTERPRISE AND RURAL INSTITUTIONS

The relation of tenure to co-operation in Illinois is a subject on which there is as yet very little data. The most important forms of farm mutual or co-operative business organizations now existing in the state are the co-operative creameries, grain elevators, mutual insurance and telephone companies, and county agricultural improvement associations. The elevators are found, for the most part, in the districts where tenants are most numerous. In the case of creameries and county associations, which are located chiefly in the Northern counties, the tenants in the surrounding districts are not so numerous as in the Central part of the state, but their numbers have been increasing with great rapidity. Neither instance, however, establishes a dependence of co-operation on tenancy. The territorial association between the prevalence of tenancy and the number of co-operators is a negative one in the case of mutual insurance companies, and this is probably true also in the case of mutual telephone companies.

The territorial association or dissociation of tenant farming with the existence of co-operative organizations can, however, be little more than suggestive. In nearly all parts of the state there are enough owners within proper radius to form the nucleus of any kind of co-operative organization thus far developed in the state. On the other hand, it cannot be said without claiming too much that co-operation has brought such prosperity as to have enabled tenants, in any large degree, to become owners of land formerly rented in the vicinity.

That tenants, changing from farm to farm at more or less short intervals, should generally be more active and successful than owners in building up co-operative organizations is hardly in the line of reason. It is a somewhat striking fact, however, that one of the most successful advocates of farmers' elevators in the state has been and still is a tenant farmer. The fact remains, nevertheless, that the shifting of tenants injures their ability to promote co-operative organizations and thereby deprives them of their share of the advantages which might otherwise accrue to them. This is probably less true where the co-operative organizations, such as farmers' elevators, have forced prices in the direction favoring the farmers, for all farmers, regardless of their term of operation in a particular vicinity, get the advantage of the more favorable prices so

long as within range of markets dominated by the quotations of the co-operative organizations.

If, in the future, co-operation assumes forms requiring greater permanency of membership in the societies, greater intimacy of acquaintance among the members, or greater investment per member, the tenants will doubtless find themselves handicapped in their relation thereto.

Other features and institutions of rural life probably suffer as much or more than co-operative societies from the replacement of owners by tenants. On the whole, the tenants cannot do as much toward stimulating business as the owners might. A part of the negligence of the rural schools can be traced to the absenteeism of landowners. The shifting of tenant families gives rise to problems for the county church, taking members of various sects and denominations into communities where their religious views are not represented in an organized communion, and cutting off the chance for the development of deep friendships and associations which give vitality to church life. Church and school finances must naturally suffer from the displacement of better-to-do landowners by tenants struggling to get an economic foothold. The relation of tenancy to the education and social life of the rural population and to the vitality of religious organizations deserves much more thoroughgoing investigation than has yet been given it.²

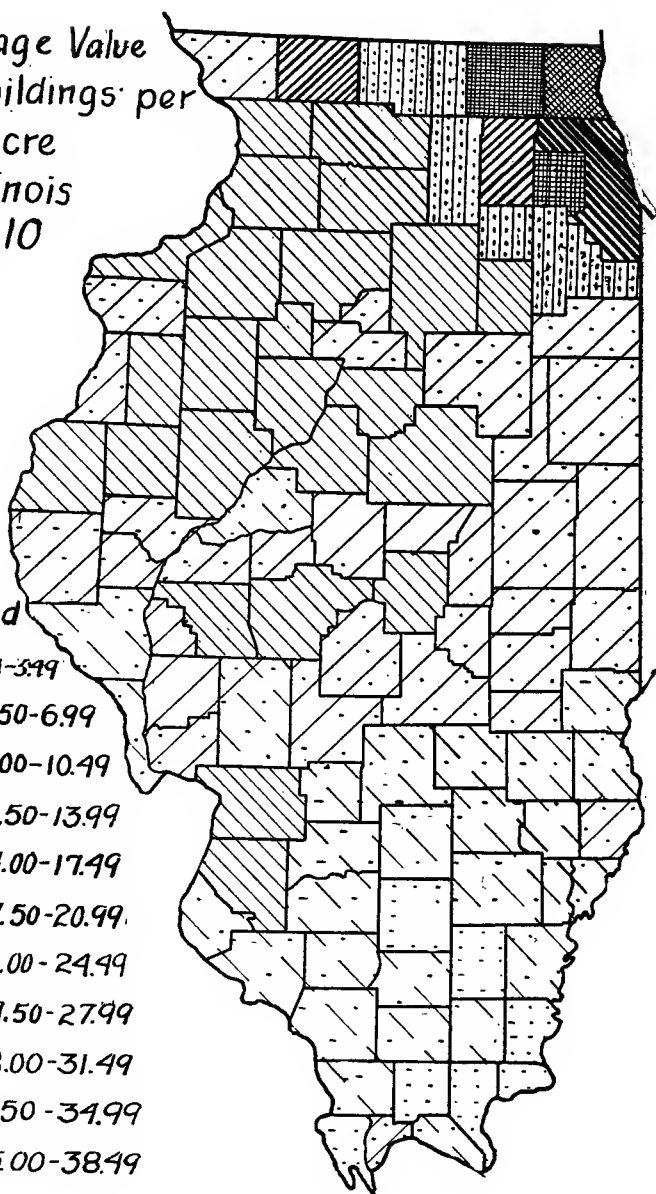
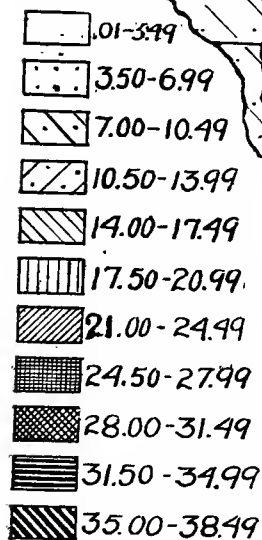
EQUIPMENT IN FARM BUILDINGS

A map is presented showing the average value of buildings per acre of improved land in Illinois in 1910. It is apparent that the sections where values were relatively highest were the sections where land was only slightly above the average in value. Where land was highest the value of buildings per acre was near the state average. In Southern Illinois the value of land and of buildings per acre were less than in the rest of the state. In the vicinity of cities the value of buildings seems to be higher, due in part to the greater number of farms in a given area, in part to the greater need of buildings on farms producing for a local market, and in part, perhaps, to the radiation from the cities of ideals in the architecture of residences. In the dis-

²See [Adams, C. S.] *A Rural Survey in Illinois*, 1911, and Rankin, F. H., Report on "General Conditions in Rural Communities," in the *Report of the Commission on Rural Problems and the Relation of the Young Men's Christian Association to their Solution*, 1912.

Average Value
of Buildings per
Acre
Illinois
1910

Legend



tricts where tenant farming was most prevalent the value per acre of buildings was small, and from 1900 to 1910 increased at no more than the average rate. This may be traceable in part to the abandonment of buildings on some patches of ground rented to part owners and to a tendency for tenant farms to suffer from lack of concern on the part of the landlord for the buildings with which his tenant has to do.

CONCENTRATION ON CEREAL PRODUCTION

In 1879 the greatest concentration on cereals in any part of the state was in the Southern and Southwestern counties. In 1889 the percentages in Central Illinois were tending in general to surpass those in Southern Illinois. In 1899 and in 1909 these tendencies had gone still farther. In Northern Illinois there was greater concentration on the cereals in 1899 than in 1889 or 1879. In 1909, however, the percentages as a whole showed a tendency to diminish.

It seems, therefore, that the movement toward concentration on cereal production has been most persistent and has gone to the greatest extremes in the districts where a large portion of the land is leased; that in the districts where ownership has been most persistent there has been a movement away from specialization in the cereal crops; and that even in Northern Illinois, where the percentage of tenancy has not been much above the state average, there was a decided trend toward cereal production during the period when tenants were multiplying most rapidly in that part of the state. It is apparent that there has been a strong emphasis on the production of corn in the original prairie districts of the state. It would be hard to say to what extent tenant farming is responsible for this. The fact that with the increase in tenant farming the emphasis does not seem to have been materially increased leads one to think that the land may be rented fully as much because it is corned as that it is corned because of being rented. It is probable, however, that with so much land operated under lease operators would be slow to make any material reduction in the acreage devoted to raising a crop the returns from which are so sure and so immediate.

TENANCY AS A SYMPTOM AND AS A CAUSE

In the agricultural economy of Illinois fundamental physiographic conditions are very important. The importance of their

influence on settlement and on early conditions of land tenure is generally admitted. That the influence of physiographic conditions has not diminished, but that it has perhaps increased with the advent of machinery and market economy is one conclusion reached in this thesis. In the dynamic changes that have taken place, the districts have gained much or little, or lost little or much, according as they compared favorably or otherwise with other districts at the start. The differences between sections of Illinois have been widening on nearly all bases of comparison, and these differences may usually be found to have a physiographic basis.

The importance of renting as a causal factor is emphasized in this investigation. Its significance as a symptom or accompanying phase has been pointed out by nearly every economist who has written upon tenancy. The belief is urged here that renting may promote a restraint in agricultural production, and may supply a sort of pension to encourage an uneconomic attitude toward their investment on the part of some owners of farm land. In the case of land that produces crops the area of possible or profitable production of which is not subject to expansion as rapidly as demand for those crops increases, farming may assume some of the characteristics of monopoly. The concerted action necessary for the realization of monopoly advantage is brought about, not by conscious compact, but unconsciously through ignorance of, inability or indisposition to employ sound methods of agriculture. To the extent that tenants are inefficient it may be said that renting reduces the supply of agricultural produce, raises prices of produce, increases the profits from raising it, and enhances land values. The statement of Adam Smith that "rent enters into the composition of the prices of commodities in a different way from wages and interest"³ may not, under present-day conditions, be quite as unfounded as the critics maintain, for rents determine the amount of renting, and, so far as they are exorbitant, doubtless incite the tenants toward more exhaustive methods.

The changes in the economic conditions of Illinois agriculture appear to have taken place with a sort of periodicity. A decade of great change was followed by one of little change,

³Smith, Adam, *Wealth of Nations*, (Buchanan edition), Vol. I, 243. See also, Walker, Francis, *Land and Its Rent*, 27; and the debate between Carlton, F. T., and Haney, L. H., in the *Quarterly Journal of Economics*, XXIV, XXV and XXVI.

and that by one of greater change in the case of a number of the phenomena of agriculture to which reference has been made in this thesis. It appears, moreover, that to a certain extent the practice of renting has been stimulated by both phases of the periodic movement.

RIISING LAND PRICES AS A HANDICAP TO POPULAR OWNERSHIP AND GOOD FARMING

In the advances that have occurred the landless farmers have not shared equally with the landed farmers. The speculative element in land values has been a decided handicap to those without land. Owners hold the land at a value capitalized at a rate below that at which money may be borrowed for the purchase of land. The greater the discrepancy between the two rates the smaller is the portion of the market value for which a mortgage loan can be negotiated on the purchased land. As a consequence of these conditions the opportunity for tenants to acquire land has been greatly reduced.

Whether reduced loan rates would enlarge the expectancy of ownership for those entering agriculture without land is a question. Within certain limits the reduction of loan rates would probably reduce the rate at which the value of land would be capitalized, and thus stimulate the transfer of land. The consequence would be a rise in land prices, not only because of the greater demand for land but also because of the expectation of future increment in value. Since, however, the rate at which land is capitalized depends not only on rates of return in agriculture, but also on rates of return in business in general, it is probable that farm loan rates could be reduced so as to be brought nearer to the rate at which land prices are capitalized. To the extent that this is possible, a reduction in loan rates would probably assist the landless in acquiring land, especially in the districts where land is highest in price. The cheaper loans should be available to those who give evidence of becoming or remaining actual farm operators.

The prominence of land values in discussions of tenant farming leads logically to a discussion of proposals to control land prices. For the most part the upward movement in the prices of farm lands in Illinois was not a rapid one between 1860 and 1900. Increment could not have played a prominent part in the calculations of land owners. Land was owned chiefly by those who contributed much to the developments which produced the rise in land prices. From about 1900 on, however,

a somewhat different condition has been prevailing. During the recent period the rise in land prices came without regard to the contribution made by the owners to the agriculture of the country. The districts where land prices have moved forward most have been those in which small expenditures need be made by owners for fertilizers and improvements. It would seem, therefore, that some method of making the rise in land prices reward the public would have been preferable during the period of phenomenal price increments. A tax of 25 per cent of the increment in the case of land bought in 1900 at \$80 an acre and sold in 1910 at \$200 would have yielded \$30. If one-eighth of such land had been transferred and taxed, the proceeds would have been \$2400 a section, or nearly \$10,000 a school district. The expenditure of half this amount, \$500 a year, within the school district, for roads, schools, and other public purposes would have been a considerable factor in rural improvement. The other half, if devoted to general tax purposes in the county, state and nation would have been of great fiscal usefulness. Not least of all advantages that might have come from such a scheme, however, is that of repressing speculation in land. The tendency for longer association of owners with their land, on which a premium would thus have been placed, would have done something to combat the practice of short leases and of temporary association with the land on the part of tenants.

Whether a tax on the increment is desirable now is another question. It is pretty certain that agitation for such a tax cannot be expected to be strong among land owners so long as the increment is accruing strongly in their sections. For that reason it seems probable that increment taxation may not be expected at the time when it might be most effective as a check on land speculation.

THE OUTLOOK

With land prices at the present stage it seems likely that the increment element must become less important and the rental element more important in the calculations of land owners. When the annual increment is \$10 on land valued at \$100, based on a net rental return of \$6 capitalized at 6 per cent, the increment is the source of five-eighths of the addition to the landlord's income and wealth during the year. If, however, the annual increment is the same amount, \$10, on land valued at \$200, based on a net rental return of \$10 capitalized at 5 per cent,

the increment is the source of one-half of the addition to the landlord's income. The tendency for the interest rate to fall is responsible for the failure of the increment to decline even more rapidly in importance in the calculations of the land owner. That the interest rate will fall as rapidly on account of the expectancy of future rise in land prices is less likely the higher the stage of land prices. An annual increment of \$10 in the case of \$100 land is 10 per cent on the investment and in the case of \$200 land is 5 per cent. We may expect, therefore, that anticipation of future rise in value will exert a smaller influence both on the rate at which land is capitalized by owners and on the annual income or addition to the wealth of the land owner.

Because greater emphasis must fall on the rental as a source of return on the high priced lands, we may probably expect a pressure by land owners for higher rents. This pressure has already been exerted in some cases. An intensified selective process is thus made operative. The demand for efficiency falls upon farmers of all tenures.

Farming efficiency in the future, however, will probably consist to a greater extent in the ability to increase net profits through co-operative dealing with the market. The efficiency test must, therefore, rule more strongly against operators of the tenures whose characteristics are opposed to successful co-operative effort on their part.

It is not necessary, however, that the farmers of other tenures operate as efficiently as the owners themselves would operate. If owners prefer to have their land operated by others than themselves, and if their holdings are sufficiently large, they may content themselves with the financial disadvantage resulting from their refusal to operate their own land.

The coming of the automobile and improved roads and the extension of rural delivery routes and of telephones may remove the main disadvantages of rural residence. Improved opportunities of applying business methods in agriculture with a favorable reaction on profits will doubtless attract people of better training and experience into the operation of farm land.

The test of productive efficiency may be somewhat slow in acting and costly but it bids fair in the long run to penalize unsound farming regardless of the tenure of the operators, and to guarantee, therefore, the survival of the best forms of tenure and of the best individual operators.

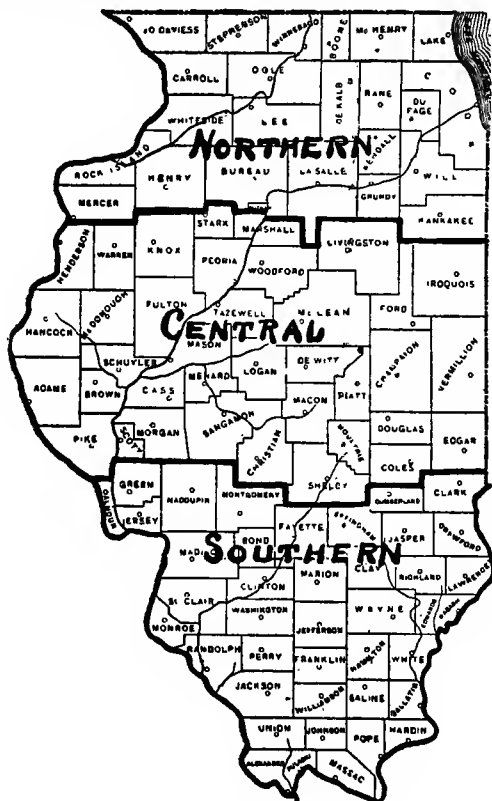
APPENDIX

The United States census bureau supplied unpublished data by means of which the author calculated the percentages that follow.

I. The percentage of the farm acreage operated by part owners under lease, and under deed, by counties, Illinois, 1910: Adams, 7.5, 11.0; Alexander, 1.9, 4.0; Bond, 8.4, 15.4; Boone, 3.5, 3.5; Brown, 7.7, 11.6; Bureau, 6.5, 7.4; Calhoun, 6.1, 10.2; Carroll, data incomplete; Cass, 6.7, 8.9; Champaign, 9.0, 8.9; Christian, 8.3, 8.9; Clark, 10.3, 13.7; Clay, 9.6, 14.9; Clinton, 7.5, 14.3; Coles, 7.7, 8.2; Cook, 5.3, 4.2; Crawford, 10.4, 13.3; Cumberland, 14.6, 17.7; De Kalb, 3.9, 4.9; De Witt, 8.7, 7.5; Douglas, 8.9, 8.8; Du Page, 1.6, 1.4; Edgar, 11.7, 9.7; Edwards, 14.8, 24.3; Effingham, 9.3, 17.7; Fayette, 12.2, 17.8; Ford, 5.6, 5.3; Franklin, 9.4, 13.9; Fulton, 5.5, 6.9; Gallatin, 10.6, 13.9; Greene, 9.6, 11.4; Grundy, 6.4, 7.7; Hamilton, 8.8, 15.6; Hancock, 9.1, 11.5; Hardin, 1.9, 4.6; Henderson, 8.3, 9.1; Henry, 5.2, 6.2; Iroquois, 7.4, 7.2; Jackson, 8.1, 11.8; Jasper, 13.5, 21.8; Jefferson, 8.0, 15.0; Jersey, 9.6, 12.2; Jo Daviess, 3.0, 5.0; Johnson, 4.6, 9.6; Kane, 1.6, 2.2; Kankakee, 8.0, 8.6; Kendall, 4.0, 4.5; Knox, 7.4, 8.2; Lake, 5.0, 6.3; La Salle, 6.5, 6.8; Lawrence, 10.2, 10.8; Lee, data incomplete; Livingston, 7.4, 7.8; Logan, 5.8, 5.6; McDonough, 8.1, 8.5; McHenry, 1.7, 2.3; McLean, 7.8, 7.3; Macon, 8.0, 7.6; Macoupin, 8.5, 11.5; Madison, 6.7, 10.3; Marion, 10.4, 17.6; Marshall, 7.7, 9.2; Mason, 8.0, 7.9; Massac, data incomplete; Menard, 9.8, 8.8; Mercer, 5.7, 6.3; Monroe, 10.1, 17.9; Montgomery, 8.4, 11.7; Morgan, 10.4, 10.5; Moultrie, 10.2, 9.7; Ogle, 5.3, 6.0; Peoria, 8.1, 9.0; Perry, 8.1, 12.5; Piatt, 7.5, 6.9; Pike, 8.4, 8.6; Pope, 4.0, 7.4; Pulaski, 7.5, 9.2; Putnam, 8.9, 8.7; Randolph, 8.1, 11.6; Richland, 10.2, 16.0; Rock Island, 5.0, 6.1; Saline, 7.2, 13.5; Sangamon, 10.2, 9.7; Schuyler, 7.9, 12.3; Scott, 9.8, 12.6; Shelby, 10.0, 11.6; St. Clair, 6.7, 9.1; Stark, 6.6, 8.9; Stephenson, 4.9, 6.6; Tazewell, 7.3, 8.2; Union, 5.9, 10.0; Vermilion, 9.4, 7.7; Wabash, 9.6, 10.2; Warren, 9.3, 9.5; Washington, 7.3, 13.8; Wayne, 9.0, 16.6; White, 9.6, 11.5; Whiteside, 3.8, 4.3; Will, 6.8, 7.5; Williamson, 6.9, 10.3; Winnebago, 4.1, 4.4; and Woodford, 8.6, 6.3.

II. The percentage of the farm acreage operated under lease by tenants and part owners, and under deed by owners proper and part owners, by counties, Illinois, 1910: Adams, 39.9, 58.9; Alexander, 41.1, 56.2; Bond, 44.0, 55.4; Boone, 56.4, 43.0; Brown, 36.9, 62.9; Bureau, 55.7, 41.2; Calhoun, 37.6, 59.5; Carroll, data incomplete; Cass, 48.0, 51.2; Champaign, 66.2, 32.7; Christian, 66.2, 32.3; Clark, 38.6, 60.9; Clay, 34.1, 63.4; Clinton, 54.4, 44.8; Coles, 56.0, 42.0; Cook, 50.5, 46.5; Crawford, 40.1, 58.7; Cumberland, 40.6, 58.1; De Kalb, 58.0, 40.3; De Witt, 68.6, 29.6; Douglas, 61.1, 36.3; Du Page, 53.2, 44.6; Edgar, 58.3, 40.1; Edwards, 31.3, 68.2; Effingham, 30.4, 69.1; Fayette, 43.0, 56.2; Ford, 75.3, 23.7; Franklin, 34.1, 64.5; Fulton, 47.9, 50.3; Gallatin, 50.8, 48.4; Greene, 47.0, 48.2; Grundy, 67.3, 31.4; Hamilton, 32.0, 56.0; Hancock, 46.4, 51.9; Hardin, 21.6, 77.8; Henderson, 48.5, 50.0; Henry, 56.6, 41.6; Iroquois, 66.5, 30.4; Jackson, 42.4, 45.3; Jasper, 36.1, 63.1; Jefferson, 31.8, 67.4; Jersey, 47.3, 51.1; Jo

Daviess, 29.5, 69.4; Johnson, 22.2, 74.0; Kane, 54.2, 42.2; Kankakee, 53.0, 44.3; Kendall, 56.3, 42.3; Knox, 54.7, 42.0; Lake, 41.8, 50.8; La Salle, 58.2, 41.2; Lawrence, 36.7, 51.7; Lee, data incomplete; Livingston, 68.2, 31.0; Logan, 72.4, 26.9; McDonough, 53.5, 44.9; McHenry, 50.3, 47.1; McLean, 65.0, 32.4; Macon, 68.5, 29.4; Macoupin, 51.5, 47.1; Madison, 51.0, 48.3; Marion, 32.9, 65.4; Marshall, 68.3, 31.4; Mason, 66.8, 32.8; Massac, data incomplete; Menard, 56.4, 43.2; Mercer, 47.8, 50.1; Monroe, 50.1, 49.4; Montgomery, 51.6, 47.2; Morgan, 51.8, 47.0; Moultrie, 60.2, 38.7; Ogle, 57.8, 40.2; Peoria, 50.3, 48.1; Perry, 35.8, 62.3; Piatt, 62.8, 29.7; Pike, 45.7, 52.2; Pope, 23.4, 75.9; Pulaski, 37.8, 61.7; Putnam, 59.4, 39.6; Randolph, 41.8, 58.0; Richland, 32.2, 66.0; Rock Island, 44.6, 53.2; Saline, 34.8, 62.9; Sangamon, 60.8, 37.4; Schuyler, 43.5, 54.3; Scott, 49.1, 49.0; Shelby, 51.7, 46.7; St. Clair, 54.4, 45.3; Stark, 54.0, 44.6; Stephenson, 43.3, 55.9; Tazewell, 59.4, 38.5; Union, 38.5, 59.1; Vermilion, 63.2, 34.8; Wabash, 44.9, 54.9; Warren, 56.5, 38.3; Washington, 43.7, 55.6; Wayne, 31.0, 67.5; White, 46.6, 53.0; Whiteside, 60.5, 37.8; Will, 49.2, 49.9; Williamson, 35.2, 64.1; Winnebago, 49.7, 49.1; and Woodford, 61.1, 37.9.



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 A. H. A. American Historical Association Publications, Washington.
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